

# The Mining Journal

## RAILWAY AND COMMERCIAL GAZETTE:

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 1868.—Vol. XLI.

LONDON, SATURDAY, JUNE 10, 1871.

(WITH SUPPLEMENT) {PRICE ..... FIVEPENCE.  
{PER ANNUM, BY POST, £1 4s

**MR. JAMES CROFTS, STOCK AND SHAREBROKER,**  
No. 1, FINCH LANE, CORNHILL.

HOLDERS of mining shares DIFFICULT OF SALE in the open market may find purchasers for the same through Mr. CROFTS' agency. Also parties requiring advice how to act in the disposal or abandonment of doubtful mining stocks may profitably avail of Mr. CROFTS' long experience on the market in all cases of doubt or difficulty, legal or otherwise.  
SPECIAL BUSINESS IN GREAT ROYALTON AND ROCHE CONSOLS shares. At the former mine the lode just cut is worth £30 per fathom, at a depth of only 22 fms. from surface. The shares in both mines must rise considerably. See reports.  
Every description of shares bought and sold at NET prices.  
Bankers: Metropolitan Bank.

**MR. W. H. BUMPUS, STOCK AND SHAREDEALER,**  
44, THREADNEEDLE STREET, LONDON, E.C., has FOR SALE the following SHARES, free of commission:—  
30 Aberdunant, 17s. 6d. 10 Eberhardt, £37½.  
150 Anglo-Australian, 3s. 5 East Lovell, £22½.  
30 Bwadrain Cons., 28s. 6d. 75 Eclipse, 21s. 6d.  
20 Bwisch Cons., 37s. 6d. 10 East Grenville, £3½.  
50 Bog, £2½. 20 Frank Mills, 27s. 6d.  
40 Bronfloyd, £2½. 10 Great Laxey, £18½.  
30 Birdseye Cr., £2 18s 9 25 Hingston Down, £2½.  
50 Caegynon, 21s. 15 Marke Valley, £6½.  
5 Cook's Kitchen, 31s. 60 No. Tankerville, 31s.  
20 Carn Camborne, £2½. 60 New Quebrada, 16s.  
25 Colorado Ter., £6½. 3 Providence.  
60 Drake Walls, 13s. 20 Pennerley, £4½.  
20 Don Pedro, £2½. 25 Pynhillmon, 38s. 9d.  
20 East Caradon, £4½. 40 Perkins Beach, 42s.  
25 East Seton. 20 Pacific, £2½.  
30 Rhydallog (offer wd.)  
10 Roman Grav., £19½.  
25 Sweetland Crk., £4 3 9  
15 South Aurora, £7½.  
20 So. Condurrow, £5.  
100 So. Rom. Gravels, 32s.  
150 Taquaril, 8s. 6d.  
10 Tankerville, £18½.  
15 Utah, £2½.  
60 Wheel Arrow, 32s.  
25 West Tankerville.  
5 W. Chiverton, £27½.  
45 West Maria, 24s.  
10 Wh. Grenville, £4½.  
70 Yudanmutana, £½.  
2 Wheel Mary Ann.

W. H. B. transacts business in every description of shares at the best market prices, and free of commission.  
Daily Price-List free on application.  
Bankers: National Provincial Bank of England, E.C.

**MR. Y. CHRISTIAN, STOCK AND SHAREDEALER,**  
11, ROYAL EXCHANGE, E.C.  
Bankers: Bank of England.

**MR. WILLIAM SEWARD, STOCK AND MINING SHARE BROKER,**  
19, THROGMOTON STREET, LONDON, E.C.  
Every description of shares BOUGHT AND SOLD at the best market prices.

**MR. C. POWELL, STOCK AND SHAREDEALER,**  
78, OLD BROAD STREET, LONDON, E.C.

**MR. JOHN RISLEY, STOCK AND SHARE BROKER,**  
77, CORNHILL, LONDON, E.C.  
Bankers: London and Westminster, Lothbury.

**MR. THOMAS THOMPSON, JUN., STOCK AND SHAREDEALER AND MINE AGENT,**  
5, WHITEHALL, LONDON, S.W.

Some valuable hints as to the purchase of mining shares will be found in Mr. THOMPSON'S "Investment Circular" for June, now ready; post free, price 6d.

**MESSRS. A. W. THOMAS AND CO., 10, COLEMAN STREET, E.C., MINING AGENTS, AND STOCK AND SHAREDEALERS.**  
Monthly Circular for June now ready; post free, 6d.

**MR. THOMAS SPARGO, MINING ENGINEER, STOCK AND SHAREDEALER,**  
224 AND 225, GRESHAM HOUSE, OLD BROAD STREET, LONDON, E.C.

HARMONY AND MONTAGUE.—I recommend the immediate purchase of shares in this company. The company is divided into 64 shares only, of £50 fully paid-up. Full particulars upon application.

**MR. T. A. MUNDY, STOCK AND SHAREBROKER,**  
38, BISHOPSGATE STREET WITHIN, E.C.  
Bankers: City Bank.

**MR. HENRY MANSELL, STOCK AND SHAREDEALER,**  
34, GREAT WINCHESTER STREET, LONDON, E.C.  
An OFFER WANTED for the following SHARES (or any part of same):—  
10 Eberhardt, £37½. 10 Roman Grav., £19 8 9  
50 Van Consols, £1 7s 6d 5 East Liangynog. 20 Cefn Consols, £3.  
35 New Beldon, 12s. 6d. 15 North Crofty.  
10 Tankerville, £18 18 9 5 Wh. Kitty (St. Agnes).  
50 King. 25 East Caradon, £4½.  
60 Queen. 10 Utah, £1½ prem. 60 So. Condurrow, £4½.  
25 Virtuous Lady. 20 Sweetland Crk., £4 1 3 20 Pennerley, £4 16s. 3d.  
20 Perkins Beach, £1 18s 9 30 Terras Tin. 10 Great Vor, £8 16s. 3d.  
15 Great Retallack. 15 Drake Walls. 5 W. Chiverton, £26½.  
33 Eclipse. 50 Aberdunant, 16s. 35 East Grenville.  
50 Great Sth. Chiverton 3 Cook's Kitchen, £25½. 2 So. Crofty, £16½.  
75 W. Tankerville, £3 18 9 60 Great Lovell, 12s. 6d. 60 So. Rom. Grav., £11 1 3  
40 Rhydallog. 10 Wheel Uny, £7½. 10 Wh. Grenville, £4 12 6  
70 Bog. 40 South Herodfoot.

Mr. HENRY MANSELL strongly advises the purchase of East Liangynog and Great Wheel Vor shares for an immediate rise in price.  
References exchanged.  
A Daily List of Closing Prices sent to clients free on application.  
Bankers: London Joint-Stock Bank.

**MESSRS. WM. MARLBOROUGH AND CO.,**  
29, BISHOPSGATE STREET WITHIN, LONDON, E.C. (Established 17 years), have FOR SALE the FOLLOWING SHARES at prices annexed:—  
50 Aberdunant, 14s. 3d. 50 E. Rhydallog, 25s.  
50 Almaden, 28s. 25 East Seton, 25s.  
20 Anglo-Argen., 17s. 20 Frank Mills, 28s.  
40 Asheton, £2 1s. 5 Great Laxey, £18½.  
30 Birdseye Creek, £2 16 25 Great Vor, £8½.  
25 Bog, £2 8s. 9d. 25 Great Western, 31s.  
40 Bluen Caelan, 39s. 6d. 25 Great Retallack, 25s. 6d.  
10 Bronfloyd, £2 9s. 6d. 20 Hingston, £2 18s. 9d.  
20 Cefn Consols. 10 Utah, £1½ prem. 20 Hobb's Hill, 30s.  
25 Chiv. Moor, £2 3s 9d 20 Llanarmon, 32s.  
3 Cook's Kitchen, £25½ 10 Marke Valley, £6½.  
1 Carn Brea, £101. 5 No. Roskear, £9 17s 6  
5 Chiverton Valley, 13s 50 No. Trekerby, 4s. 6d.  
40 Drake Walls, £3 9d. 20 No. Tankerville, 21s 9  
1 Devon Consols, £10½ 20 North Crofty, £2½.  
10 Dolwen, 21s. 9d. 20 New Crow Hill, 6s.  
5 Eberhardt, £37½. 40 New Beldon, 12s. 6d.  
100 Excelsior, 3s. 9d. 25 Parys Mount, £25 16 3  
100 Eclipse, 4s. prem. 20 Penryn, 25s. 6d.  
20 East Grenville, £3 6 3 25 Pacific, £2 18s. 9d.  
5 East Pool, £13 8s. 9d. 20 Pynhillmon, £1 18 9s  
10 E. Liangynog (fully paid), £3 10s. 20 Pennerley, £4 18s 9d.  
30 E. Liangynog, £2 3s 9 20 Prince of Wales, 22s 6  
30 Frank Mills, 20 West Tankerville, £3 1s. 6d. 20 South Darren, 26s.  
20 Perkins Beach, £2 1 9

UTAH MINE will prove the prize of 1871. The Inspector has confirmed the reports by telegram.  
NORTH POOL, GREAT RETALLACK, BOG, and ECLIPSE shares should be purchased at present low prices.

**MR. GEORGE BUDGE, STOCK AND SHAREDEALER,**  
No. 4, ROYAL EXCHANGE BUILDINGS, LONDON, E.C. (Established 31 years), is a SELLER at net prices of:—  
5 Great Laxey, £17½; 20 East Grenville, £3 6s. 9d.; 50 Parys Mountain, £2½; 40 South Roman Gravels, 32s.; 2 Lisburn, £169; 1 Devon Great Consols, £106½; 10 Wheel Uny, £7½; 60 Wheel Crebor, 30s.; 20 West Basset, £2½; 100 Perkins Beach; 70 Drake Walls, 12s. 6d.; 65 West Caradon; 40 Trevarrack, £4 18s. 6d.; 25 Frank Mills; 20 West Tankerville, £3 1s. 6d.; 40 Prince of Wales, 22s. 6d.; 70 Bwisch Consols; 30 Polbreen, £2½; 100 Treleigh Wood; 100 Perran Wheel Virgin, 31s. 6d.; 200 Redmoor, 6s. 6d.; 100 East Chiverton, 17s. 6d.; 5 North Roskear, £2½; 30 Chiverton Moor, £2½; 2 Mineral, £165½; 50 Wheel Seton, £24; 60 Pynhillmon, 40s.; 75 North Tankerville; 50 Wheel Arthur; 45 West Jewell; 150 General Brazilian, 14s. 6d.; 200 Anglo-Brazilian, 5s. 9d.; 120 Thornhill Reef, 34s. 6d.  
BUYERS of 200 Lusitanian, 5s.; 25 Rose and Chiverton; 10 Wheel Kitty (St. Agnes), £2 7s. 6d.; 20 Great Vor; 5 Herodfoot, £4½; 1 South Crofty; and 40 Hingston Down.

**SOUTH ROMAN GRAVELS, TANKERVILLE, ROMAN GRAVELS.**  
Full particulars of these mines will be found in PETER WATSON'S "WEEKLY MINING CIRCULAR AND SHARE LIST—SYNOPSIS OF CORNISH AND DEVON MINES, &c.," of Friday, June 9, No. 638, price 6d. each, forwarded on application.

**MR. PETER WATSON, STOCK AND SHAREDEALER,**  
79, OLD BROAD STREET, LONDON, E.C.  
Bankers: The Alliance Bank, and Union Bank of London.

**WEEKLY MINING CIRCULAR, EVERY FRIDAY.**  
LONDON DAILY RECORD, STOCK & SHARE LIST, Every Evening.  
Published by P. WATSON, Stock and Sharedealer, 79, Old Broad-street, E.C.

**MR. W. H. CUELL, LONDON, E.C.**  
No. 42, CORNHILL, LONDON, E.C.  
Daily price-list on application.  
W. H. CUELL recommends Tankerville, West Tankerville, Pennerley, Bog, and South Roman Gravels.

Twenty-six Years' Experience.  
**MR. F. W. MANSELL, STOCK AND SHAREDEALER,**  
1, PINNER'S COURT, OLD BROAD STREET, LONDON, E.C.  
Daily List of closing prices in British and Foreign mines every evening (free).  
References exchanged. Bankers: London Joint-Stock Bank.

**MR. G. D. SANDY, 2, PINNER'S COURT, OLD BROAD STREET, LONDON, E.C.**  
FOR SALE, at prices named, free of all commission:—  
25 Bog, £3 6s. 8d. 45 Pennerley, £4 18s. 9d. 45 East Liangynog, £2.  
25 Bog, £3 10s. 20 Parys Mount, £3½. 20 Van Consols, £1 2s 6d  
15 East Lovell, £22½. 85 Perkins Beach, £2 0 6 5 Mary Ann, £18.  
60 Crebor, 34s. 95 Wt. Rhoswydol, 8s 6d 25 No. Crofty, £2 11s. 3d  
40 Prince of Wales. 15 W. Esqair Lie, £2½. 20 Wh. Agar, 19s. 6d.  
55 No. Tankerville, 22s 3 25 Virtuous Lady, 23s 6d 100 Excelsior, 8s. 9d.  
30 So. Rom. Grav., 28s. 25 Roche Consols, 38s. 50 West Jewell, £2½.  
10 Great Vor, £8½.

NEW HENDRA.—This mine is second to none in the district, and will shortly establish itself. Every information will be afforded on application.

**MR. E. J. BARTLETT, STOCK AND SHAREDEALER,**  
No. 3, GREAT ST. HELEN'S, LONDON, E.C., transacts business at net prices in every description of security.  
\* \* \* Eight edition, "How to Invest, and What to Select." Now ready, post free for seven stamps.  
\* \* \* NORTH POOL.—A great advance in prices of shares may be expected.

**MESSRS. W. DUNN AND CO., STOCK AND SHAREDEALERS,**  
3 AND 4, GREAT WINCHESTER STREET BUILDINGS, LONDON, E.C.  
Bankers: National Provincial Bank of England.

FOR SALE, at prices annexed:—  
20 Aberdunant, 16s. 5 North Roskear, £2½. 3 Treleigh Wood, £22.  
20 Bog, £3 10s. 20 Parys Mount, £3½. 20 Van Consols, £1 2s 6d  
20 Bronfloyd, £2½. 35 Pen' Alt, 11. 25 Virtuous Lady, £1 8s  
20 Carn Brea, £100. 20 Pennerley, £4 18s. 25 West Chiverton, £27.  
20 East Liangynog, £2 5 25 Perran Vyvan, 13s. 20 West Esqair Lie.  
3 East Lovell, £22. 20 Perkins Beach, £2 0 6 20 W. Tanker, £3 16s 3d  
20 East Seton, £1 5s. 6d. 20 Prince Wales, £1 2 6 20 Wh. Agar, £1 1s.  
10 East Grenville. 25 Providence, £23. 20 Wheel Crebor, £1 11s  
20 Great Rock. 25 Condurrow, £4½. 10 Wh. Grenville, £4 12 6  
50 Great So. Chiverton, 50 South Darren, £1 2s 6 5 Wh. Kitty (Leland),  
offer wanted. 50 Sth. Roman Gravels, £10 10s.  
10 Great Vor, £8 13s. 6d. 11 11s. 3d. 5 Wh. Kitty (St. Agnes),  
40 King, 14s. 3 So. Frances, £39. £9.  
20 North Crofty, £2½. 5 Tankerville, £18 5s. 10 Wheel Uny, £7 5s.  
20 Terras.

TERRAS TIN.—Messrs. DUNN and Co. have pleasure in calling attention to the report of this mine, under date of the 7th inst., as the best yet received. They can with confidence recommend the purchase of shares at present prices.

**SILK AND CO., STOCK AND SHARE BROKERS,**  
32, REGENT STREET, PICCADILLY, W.  
FRANK LEMMER, Secretary.

**MESSRS. E. BREWIS AND CO., STOCK AND SHAREDEALERS,**  
18 AND 19, BISHOPSGATE STREET WITHIN, LONDON, E.C.  
Business transacted in Erie and other American Railways and Bonds, also in Foreign and British Mines, Railways, and Foreign Bonds.  
Money advanced on Mines to any reasonable amount for stated periods.  
EBERHARDT AND AURORA, SOUTH AURORA, &c.—Business in these shares on very favourable terms.  
Bankers: The Alliance Bank (Limited), Lothbury, London, E.C.

**MR. JAMES STOCKER, STOCK AND SHAREDEALER,**  
2, CROWN COURT, THREADNEEDLE STREET.  
SHARES FOR SALE for cash or account:—  
20 Pennerley, £4 16s. 25 Parys Mount, £3 16 3 15 Grenville, £4 10s. 6d.  
40 Taquaril, 7s. 6d. 20 Perkins Beach, 40s. 30 Bog, £2 8s. 6d.  
25 Eclipse, 3s. 3d. pm. 5 Van, £5½. 10 Great Laxey, £18½.  
20 Sweetland, £3 18s. 9d 10 Tankerville, £18½. 40 Van Consols, 24s.  
5 W. Chiverton, £26½. 10 East Lovell, £22½. 60 So. Roman Grav., 31s 6  
Bankers: London and Westminster, Lothbury.

**THE UNDERSIGNED TRANSACTS BUSINESS AT MARKET NET PRICES in the following MINES—(others not named bought or sold for cash if practicable):—**

|                       |                   |                                    |
|-----------------------|-------------------|------------------------------------|
| Carn Brea.            | Marke Valley.     | Tincroft.                          |
| Dolcoath.             | Margaret.         | West Chiverton.                    |
| Drake Walls.          | North Crofty.     | West Seton.                        |
| East Basset (wanted). | Providence.       | Wheel Jane.                        |
| Kitty (St. Agnes).    | St. Frances.      | Wheel Agar (wanted).               |
| Bog.                  | WELSH.            |                                    |
| Bronfloyd.            | Pennerley.        | Roman Gravels & South Tankerville. |
|                       | Perkins Beach.    |                                    |
|                       | West Tankerville. |                                    |
|                       | FOREIGN.          |                                    |
| Don Pedro.            | Pacific.          | South Aurora.                      |
| Eclipse.              | Sweetland Creek.  | Taquaril.                          |
|                       |                   |                                    |

Every information will be furnished on application, and it is solicited to further business that those applying, whether to buy or sell, will state the number of shares. At any time the current market prices will be forwarded at the close of the day on receipt of a stamped envelope. The large amount of business daily transacted in Welsh and selected Cornish mines admits of the public investing profitably.  
JAMES BRECHLEY, 32, Nicholas-lane, Lombard-street, London, and Mining Exchange (Established Eighteen Years).

**THE CITY EXCHANGE MINING AND INVESTMENT OFFICES,**  
32, NEW BROAD STREET, LONDON, E.C.  
ALFRED FISHER, MANAGER.

Buy immediately shares in the EAST LLANGYNOG MINE, now producing large quantities of lead: 40 tons have just been sold. Other parcels are being prepared for the market. The mine is looking splendid. Shares must advance. We can offer 40 shares for sale if applied for at once, at £3 each. We have also business in all marketable shares.  
An OFFER WANTED for 20 shares in CEFN CONSOLS.  
A. FISHER and Co., 32, New Broad-street, London, E.C.

**ENDEAN AND CO., STOCK AND SHAREDEALERS,**  
BRITISH AND FOREIGN STOCK, SHARE, AND MINING OFFICES,  
85, GRACECHURCH STREET, LONDON, E.C.  
The Liangynog Mine, in Montgomeryshire, has proved to be the richest mine in the Principality. It has paid £200,000 in dues alone, and has yielded lead to the extent of £5,000,000 sterling, and is fairly anticipated that "East Liangynog" will prove a mine of no less importance than its predecessor. These shares must have a considerable advance in price, and are safe as an investment. We strongly advise their purchase.  
Messrs. ENDEAN and Co. can offer for immediate acceptance any portion of 100 shares at £3 each.  
We have also SPECIAL BUSINESS in all the leading mines.  
An OFFER WANTED for 50 shares in CEFN CONSOLS and 25 in RHYDALLOG.  
Address, 85, Gracechurch-street, London, E.C.

**MR. CHARLES THOMAS,**  
MINING AGENT, AND GENERAL SHAREDEALER,  
3, GREAT ST. HELEN'S, LONDON, E.C.

Fourth Edition. Now ready, post free, sixpence.  
**INVESTMENTS AND SPECULATIONS**  
FOR 1871.  
CHARLES THOMAS, 3, Great St. Helen's, London.

New edition, 1870, price 6d.,  
**SELF HELP TO PATENT LAW**  
Also, price 1s.,  
**COLONIAL AND FOREIGN PATENT LAWS.**  
By GEORGE DAVIES, C.E.  
Published at the Office for Patents, 4, St. Ann's-square, Manchester, by GEORGE DAVIES, C.E. (late John Davies and Son).  
Established 1838.

**MESSRS. G. LAVINGTON AND A. PENNINGTON,**  
44, THREADNEEDLE STREET, E.C., STOCK AND SHAREDEALERS,  
have SPECIAL BUSINESS in the undermentioned:—  
Pacific Gold. Perkins Beach. West Esqair Lie.  
Sweetland Creek. Utah. Powell United.  
Birdseye. Eclipse. Bog.  
Mary Ann. Tincroft. Pennerley.

TO INVESTORS.—NOW READY.  
**LAVINGTON AND PENNINGTON'S "MONTHLY RECORD OF INVESTMENTS,"** containing an exhaustive Review of the British and Foreign Stock and Share and Money Markets, &c., with an enumeration of safe investments, paying from 10 to 20 per cent. Price 6d. per copy, or 5s. annually. G. LAVINGTON and A. PENNINGTON, 44, Threadneedle-street, London, E.C.

**MR. T. E. W. THOMAS, STOCK AND SHAREDEALER,**  
3, GREAT WINCHESTER STREET BUILDINGS, E.C.  
Business operations in Mining Shares negotiated at close market rates.  
Daily Price-List on application.  
Mr. THOMAS has special business in North Tankerville, Perkins Beach, and South Roman Gravels.

**MR. C. A. POWELL, STOCK AND SHAREDEALER,**  
No. 1, PINNER'S COURT, OLD BROAD STREET, E.C., directs special attention to PENNERLEY shares. The mine possesses parallel lodes to Tankerville, and the point of interest is the cutting the Warm Water Lode in the 80 fm. level, which in the 40 is worth 6 tons of lead per fathom.  
Buyer or Seller of all shares currently dealt in at net price.  
References exchanged. Bankers: City Bank, Finch-lane.

**JOHN LEAN, M.E., AND CO., STOCK AND SHAREDEALERS,**  
5, AUSTINFRIARS, OLD BROAD STREET, LONDON, E.C.  
We strongly advise the purchase of EAST LLANGYNOG shares for a great rise in price. They have positively sampled 40 tons of lead, which is sold at a good price, and we are credibly informed that another large parcel is being got ready for the market, and from the important discovery just made hundreds of tons of lead can be broken down, and made ready for market. Shares should be bought *ad libitum*. We can only offer 50 shares for sale, or any less portion, at £3 each, for prompt acceptance. We advise also the purchase of Great Vor, South Condurrow, Tincroft, Devon Consols, West Chiverton, and Van shares.  
An OFFER WANTED for 25 shares in CEFN CONSOLS.  
JOHN LEAN and Co., 5, Austinfriars, London, E.C.

**BARTLETT AND CHAPMAN, STOCK AND SHAREDEALERS,**  
36, CORNHILL, LONDON, E.C.  
SPECIAL BUSINESS in the following SHARES at close net prices:—  
Van. West Chiverton. Tincroft.  
Tankerville. Wheel Jane. Cook's Kitchen.  
Perkins Beach. Herodfoot. Providence.  
Llanarmon. Dolcoath. East Chiverton.  
Lovell Consols. The Lovell. Utah.  
The Staffordshire Brick and Tile Company's shares are worth attention at present price.  
Bankers: London and Westminster.

**MESSRS. J. HUME AND CO., 74, OLD BROAD STREET, LONDON, E.C.,**  
Recommend the soundest dividend mines, paying 10, 15, and 20 per cent. on market price of shares.  
Progressive mines likely to rise 100 to 500 per cent.  
Redmoor Mining Company, as a legitimate investment, is unsurpassed. Particulars on application.  
Central City, Colorado, 3 to 4 prem. Shares will rise to 8 or 10 prem.  
"The Investment Record and Mining Review" for June ready in a few days, containing particulars of the leading mines of the day.

**MR. ALFRED JONES, STOCK AND SHAREDEALER,**  
72, KINGSLAND ROAD, LONDON.  
Mr. JONES has the following SHARES FOR SALE, either for cash or account:—  
60 Anglo-Argent., £1. 50 Eclipse, £1½. 40 Prince of Wales, 22s.  
70 Asheton, £2½. 30 East Grenville, £3½. 80 Port Phillip, 16s.  
20 Blaen Caelan, £1½. 60 Great Vor, £8½. 75 Pacific, £2½.  
40 Cefn Consols. 80 East Liangynog, £3. 25 Sierra Buttes, £4½.  
60 Drake Walls, £3. 50 Great Roydon, £1½. 20 West Basset, £2½.  
WANTED TO BUY—75 Frontino and 100 Anglo-Brazilian.

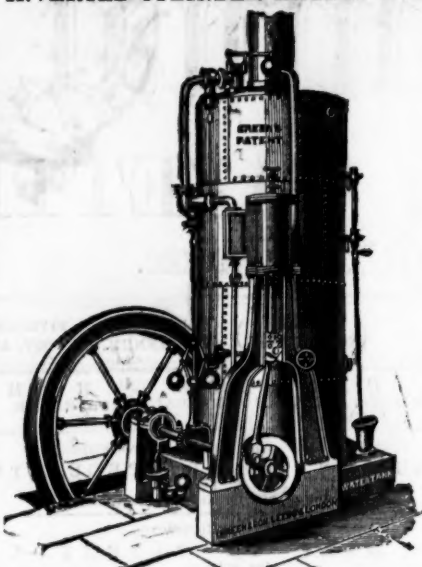
**LONDON MINE AGENCY**  
(ESTABLISHED 1848),  
50, BISHOPSGATE STREET WITHIN, LONDON, E.C.

Mr. HENRY PRET'S long experience and thorough knowledge of all the mining districts of the country enables him to refer to a large circle of capitalists whom he has represented for more than 20 years.  
Surveys and reports of mines furnished by agents of unquestionable reputation and ability, who have long been connected with the LONDON MINE AGENCY.  
Mr. PRET is ready to co-operate in the organization of mining companies, and to register under the Companies Acts, with Limited Liability, with the least possible delay.  
The LONDON MINE AGENCY is an Office of Reference for mining companies having no established representation in London. Such an incidental Agency has been found to be desirable, and where a personal description of mines can be given, more frequent investments take place.  
Amongst a number of excellent mines deserving the attention of investors, not one can be put forward to justify a higher recommendation than the FLORENCE and TONKIN MINES, Callington, Cornwall. The company is now limited, in 12,500 shares of £1. The particulars cannot fail to convince capitalists that this is one of the most honourably organised companies ever submitted to investors.  
A company is in course of formation to work the BUANTH SLATE QUARRY in the Festiniog district, North Wales. This is not a speculation, but a splendid channel for the application of capital. This quarry must yield immense returns, as Nature has here been very outspoken in the evidences already laid open.  
SLATE QUARRIES carefully inspected and reported upon by an engineer specially retained in connection with the LONDON MINE AGENCY, and who has had upwards of 30 years' practical experience in the United Kingdom and America.  
LONDON MINE AGENCY, 50, BISHOPSGATE STREET, LONDON, E.C.

**HOOKE AND CO., STOCK AND SHAREDEALERS,**  
LIFE, FIRE, AND MARINE INSURANCE AGENTS,  
9, UNION COURT, OLD BROAD STREET.  
The TERRAS TIN Mining Company (Limited), recommended by us, has up to the present time sold 26 tons of tin, and from 6 to 7 tons more will be sold this month: the prices realised ranged from £70 to 76l. 15s. per ton. The company have been in operation about a year, and the above results justify our still recommending it. We can offer for sale 50 shares at a moderate price.  
The EAST LLANGYNOG LEAD MINING COMPANY (Limited), registered in December 1st last, have sold 40 tons of lead. We can offer for sale 50 shares (£1 13s. paid).  
CWM RICKET LEAD MINING COMPANY (Limited).—We can offer 10 shares in this undertaking at £4 per share. The Cwm Ricket is near the Van Mine, the share of which, within a very short time, advanced from £4 5s. to over £23.  
Investors are advised to purchase quickly into selected Mexican and South American mines. Confidential information to clients only.  
At the rate of One Guinea per annum, we give investors information on legitimate mining properties in the United Kingdom.  
FOR SALE:—10 Aberdunant; 20 Guerrero Gold; 50 New Rosario, fully paid, £1 6s.; 10 New Chiffo, offer wanted; 20 East Liangynog; 10 Brynambor 17s. 6d.; 20 El Chico; 50 Cwm Ricket.  
HOOKE and Co., 9, Union-court, Old Broad-street, London.

## GREEN'S PATENT BOILERS, WITH INVERTED CYLINDER ENGINE COMBINED

Specialty adapted for Contractors, Joiners, and Builders,  
Cabinet-makers, Brick-makers, Farmers, &c., &c.,  
Houses, Workshops, Printing-offices, &c.



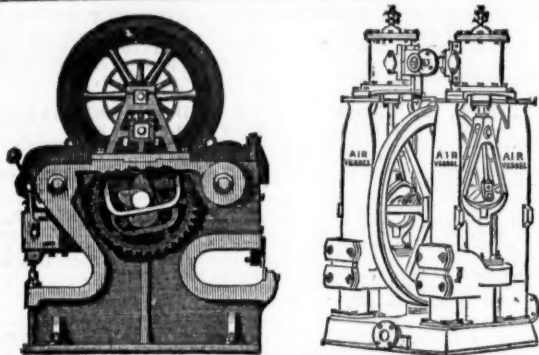
For Exportation they are invaluable, being sent out in  
complete working order, ready for  
immediate use.

The above Engines and Boilers are constructed in an exceedingly substantial and simple manner, every part being easy of access, consequently can be readily understood and managed; they are fitted with governors, equilibrium throttle valve, stop valve, safety valve, feed pump, water and steam gauges complete. The foundation plate answers the purpose of feed water tank, in which the water is heated before passing into the boiler, and also of an ash-pit, and no brickwork or foundation is required.

N.B.—Upwards of 600 of these Engines and Boilers are now at work, giving entire satisfaction.

Illustrated PRICE LISTS free on application to

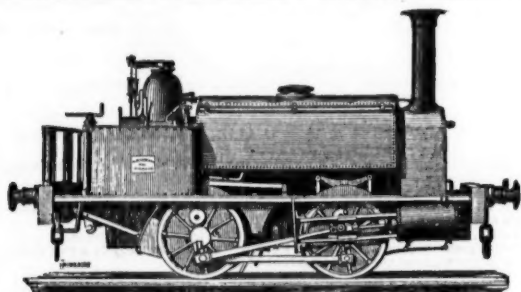
**THOMAS GREEN AND SON,**  
SMITHFIELD IRONWORKS, LEEDS;  
And 54 and 55, Blackfriars-road, London, S.E.



**JOHN CAMERON,**

MAKER OF

STEAM PUMPS, PORTABLE ENGINES, PLATE BENDING ROLLERS,  
BAR AND ANGLE IRON SHEARS, PUNCHING AND SHEARING  
MACHINES, PATENT OF THE DOUBLE CAM LEVER  
PUNCHING MACHINE, BAR SHEARS, AND RAIL  
PUNCHING MACHINES,  
**EGERTON STREET IRON WORKS,**  
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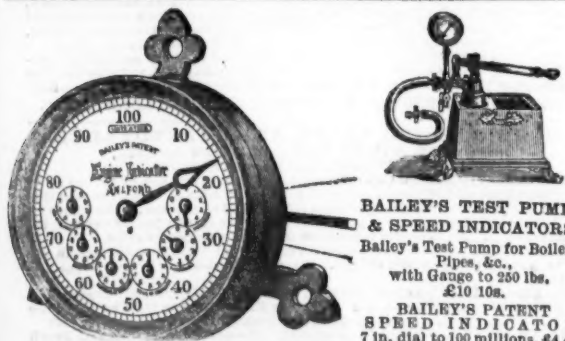
**TANK LOCOMOTIVES,**

FOR SALE OR HIRE.

**HENRY HUGHES AND CO,**  
LOUGHBOROUGH.



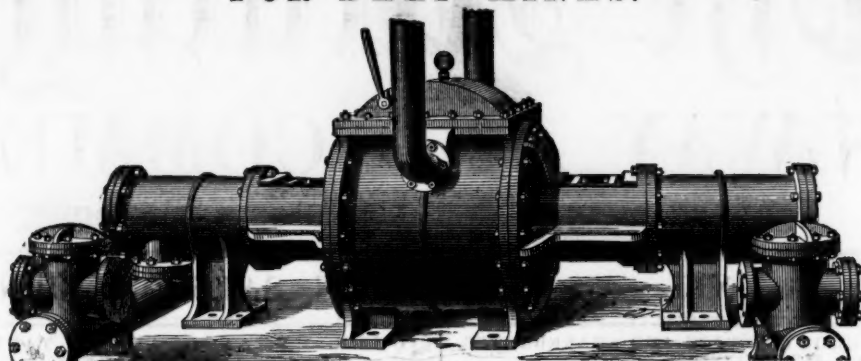
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CENTRAL ENGINEERING WORKS, OLDHAM,  
MANUFACTURER OF MOST IMPROVED  
Silent Fans for blowing and exhaust-  
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bined, for ventilation.  
Direct-acting Steam Fans.  
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**BAILEY'S TEST PUMPS  
& SPEED INDICATORS.**  
Bailey's Test Pump for Boilers  
Pipes, &c.,  
with Gauge to 250 lbs.  
£10 10s.  
**BAILEY'S PATENT  
SPEED INDICATOR**  
7 in. dial to 100 millions, £4 4s.

(In order, say if for reciprocating or rotary motion.) Used for Pumping  
Engines, Winding Purposes, &c.  
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## HAYWARD TYLER AND CO'S PATENT STEAM PUMPING MACHINERY FOR DEEP MINES.



The Machine erected in South Wales (at the Broad Oak Colliery, Loughor, near Llanelli), has a steam cylinder 40 inches diameter and two plungers of 8 inches diameter, and is raising 15,000 gallons of water per hour, the steam-boiler being on the surface. This it does with the greatest ease, the pump-valves working with scarcely any perceptible sound. The length of the incline besides the vertical lift is at present about 250 yards. The pump is constructed to be moved down the working as it advances, and is calculated to force the water to a height of 700 feet through a horizontal distance of 490 yards. For full description see *Mining Journal*, *Colliery Guardian*, *Engineering*, &c.

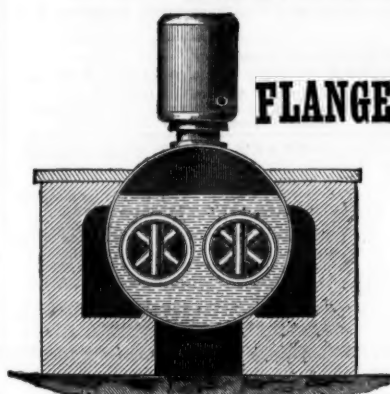
**Sole Makers, HAYWARD TYLER & Co., Hydraulic Engineers,**  
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## HAWKSLEY, WILD, AND CO'S

PATENT

FLANGED & COMBUSTION-CHAMBERED

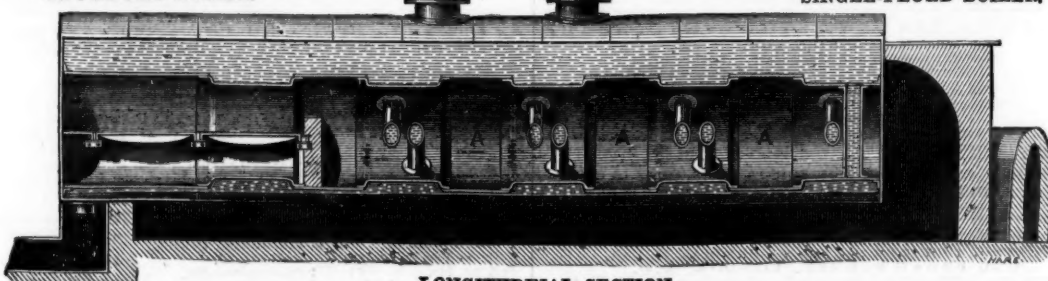
FLUED  
BOILERS.



TWO-FLUED BOILER.



SINGLE-FLUED BOILER.



LONGITUDINAL SECTION.

THE FLUES OF THE ABOVE BOILERS ARE MADE OF TWO DIAMETERS, ONE RING OF PLATES BEING 4 inches less than the other, alternately.  
The smaller rings being flanged, as shown in drawing, are thereby considerably strengthened, besides securing the most material point—a perfect EXPANSION-JOINT.  
The cross tubes are placed in the smaller rings of the flue, so that any one can easily be taken out and replaced.  
The larger rings of the flue act as reverberating, combustion, and heat-retaining chambers, greatly economizing the fuel.  
These Boilers are strong, durable, and economical, and have been at work a number of years with the most satisfactory results.

PATENTEES AND MANUFACTURERS:

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## CHAPLIN'S PATENT STEAM ENGINES AND BOILERS. PRIZE MEDAL, INTERNATIONAL EXHIBITION, 1862.

STATIONERY ENGINES,

From 1 to 30-horse power. No building required.

STEAM CRANES,

1½ to 30 tons. For wharf or railway.

HOISTING ENGINES,

10 cwt. to 15 tons. With or without jib.

TRACTION ENGINES,

6 to 27-horse power. Light and heavy.

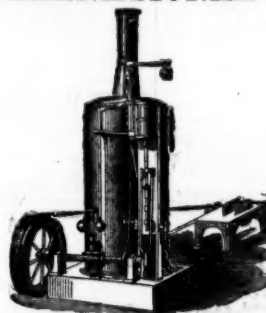
DONKEY FEED-ENGINES.

The ORIGINAL Combined Vertical ENGINES and BOILERS introduced by Mr. CHALIN in 1855.  
EACH CLASS KEPT IN STOCK FOR SALE OR HIRE.

**WIMSHURST AND CO., ENGINEERS,**

OFFICE: 117, CANNON STREET, LONDON, E.C.

WORKS: REGENT'S PLACE, COMMERCIAL ROAD EAST, LONDON E.



STATIONARY ENGINE.

CONTRACTORS' LOCOMOTIVES,

6 to 27-horse power. For steep inclines and curves

SHIPS' ENGINES,

Hoisting, cooking, and distilling. Passed for  
half-water.

MARINE ENGINES AND BOILERS,

For light screw and paddle steamers, ships,  
boats, &c.

STEAM WINCHES,

With or without boilers and connections.

DUPLEX PRESSURE FANS.

## CHAS. PRICE AND CO'S RANGOON ENGINE OIL, AS SUPPLIED TO H.M. DOCKYARDS AND FLEET.



THIS OIL is suitable to every kind of Machinery. As a lubricant it is equal to the best Spermin or Lard Oil, while it possesses the great advantage of being entirely free from any principle which will corrode the metal bearings.

For particular kinds of Machinery, the Oil may be specially prepared of a consistency and character adapted to the nature of the work to be done.

"I herewith certify that the Rangoon Engine Oil, manufactured by Messrs. Chas. Price and Co., is free from any material which can produce corrosion of the metal work of machinery. It is indeed calculated to protect metallic surfaces from oxidation.

"The lubricating power of this oil is equal to Spermin or Lard Oil.

"T. W. KEATES, F.C.S., &c., &c."

Every parcel of the Oil sent from the works bears the Trade Mark of the Firm.

LONDON: CASTLE BAYNARD, UPPER THAMES STREET.

WORKS: MILLWALL, POPLAR!

**BICKFORD'S PATENT**  
FOR CONVEYING  
CHARGE IN**SAFETY FUSE,**  
FIRE TO THE  
BLASTING ROCKS, &c.

Obtained the PRIZE MEDALS at the "ROYAL EXHIBITION" of 1851; at the "INTERNATIONAL EXHIBITION" of 1863, in London; at the "IMPERIAL EXHIBITION" held in Paris, in 1865; at the "INTERNATIONAL EXHIBITION," in Dublin, 1865; at the "UNIVERSAL EXPOSITION," in Paris, 1867; and at the "GREAT INDUSTRIAL EXHIBITION," at Altona, in 1869.

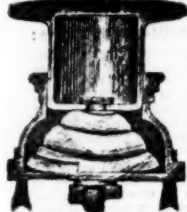


**BICKFORD, SMITH, AND CO.**  
of TUCKINGMILL, CORNWALL, MANUFACTURERS OF PATENT SAFETY-FUSE, having been informed that the name of their firm has been attached to fuse not of their manufacture, beg to call the attention of the trade and public to the following announcement:—  
EVERY COIL of FUSE MANUFACTURED by them has TWO SEPARATE THREADS PASSING THROUGH the COLUMNS of GUNPOWDER, and BICKFORD, SMITH, AND CO. CLAIM SUCH TWO SEPARATE THREADS as THEIR TRADE MARK.

**BENNETTS' SAFETY FUSE WORKS,**  
ROSEKAR, CAMBORNE, CORNWALL.**BLASTING FUSE FOR MINING AND ENGINEERING**  
PURPOSES,

Suitable for wet or dry ground, and effective in Tropical or Polar Climates.

W. BENNETTS, having had many years' experience as chief engineer with Messrs. Bickford, Smith, and Co., is now enabled to offer Fuse of every variety of his own manufacture of best quality, and at moderate prices.  
Price Lists and Sample Cards may be had on application at the above address.

**THOMAS TURTON AND SONS,**  
MANUFACTURERS OF

CAST STEEL FOR PUNCHES, TAPS, and DIES,  
TURNING TOOLS, CHISELS, &c.  
CAST STEEL PISTON RODS, CRANK PINS, CONNECTING RODS, STRAIGHT and CRANK AXLES, SHAFTS and FORGINGS OF EVERY DESCRIPTION.  
DOUBLE SHEAR STEEL, FILES MARKED  
BLISTER STEEL, T. TURTON.  
SPRING STEEL, EDGE TOOLS MARKED  
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Locomotive Engine, Railway Carriage and Wagon Springs and Buffers.

**SHEAF WORKS AND SPRING WORKS, SHEFFIELD.**  
LONDON WAREHOUSE, 35, QUEEN STREET, CANNON STREET, CITY, E.C.  
Where the largest stock of steel, files, tools, &c., may be selected from.

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PATENTERS.  
(ESTABLISHED 1770.)

MANUFACTURERS OF EVERY DESCRIPTION OF IMPROVED

**PATENT FLAT AND ROUND WIRE ROPES**

From the very best quality of charcoal iron and steel wire.

**PATENT FLAT AND ROUND HEMP ROPES.**

SHIPS' RIGGING SIGNAL AND FENCING STRAND, LIGHTNING CONDUCTORS STEAM PLOUGH ROPES (made from Webster and Horsfall's patent steel wire), HEMP, FLAX, ENGINE YARN, COTTON WASTE, TARPULING, OIL SHEETS, BRATTICE CLOTHS, &c.

UNIVERSE WORKS, MILLWALL, POPLAR, LONDON.

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**RAILWAY WAGON WORKS, BARNSELY.****MESSRS. G. W. AND T. CRAIR**

ARE PREPARED TO  
SUPPLY COAL AND COKE WAGONS  
OF EVERY DESCRIPTION,  
Either for cash, or by deferred payments through wagon-leasing companies.

WAGONS PROMPTLY REPAIRED

**THE BEVERLEY IRON AND WAGGON COMPANY,**  
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MANUFACTURERS OF RAILWAY WAGGONS, WHEELS and AXLES  
CARTS, LORRIES, WOOD WHEELS, PATENT WROUGHT IRON WHEELS  
and AXLES, BARROWS, PUMPS, DOUBLE PURCHASE CRABS, &c., &c.  
IRON WORKS—BEVERLEY, YORKSHIRE.  
Catalogues free by post.

**LOCOMOTIVE TANK ENGINES**

FOR MAIN LINE TRAFFIC, SHORT LINES, COLLIERIES,  
CONTRACTORS, IRONWORKS, MANUFACTORIES, &c., from a  
superior specification, equal to their first-class Railway Engines, and specially  
adapted to sharp curves and heavy gradients, may always be had at a short  
notice from—

**MESSRS. BLACK, HAWTHORN, AND CO.,**  
LOCOMOTIVE, MARINE, AND STATIONARY ENGINE WORKS,  
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London Office: 118, CANNON STREET, E.C.

**MECHANICAL VENTILATORS FOR MINES.**

**MESSRS. BLACK, HAWTHORN, AND CO.,**  
LOCOMOTIVE, MARINE, AND STATIONARY ENGINE WORKS,  
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HAVE now a speciality for the construction of the "GIBBAL" FAN, with their Engines designed expressly for them. Tenders sent on application.  
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PERMANENT, CONTRACTORS, and COLLIERY RAILS, in STEEL or IRON  
Wrought-Iron or Steel Weldless Locomotive Carriage and Wagon Tyres.  
Iron and Steel Straight and Cranked Axles, Wheels and Axles, Railway Chairs,  
Fish Plates, Bolts and Nuts, Spikes, Cranes, Jacks, Rivets, Hurdles,  
and Chains.

Black or Galvanised Telegraph Wires, Fencing Wire.  
BLACK, OILED, and GALVANISED CORRUGATED SHEETS.  
Rolled Iron Joists, Wrought-Iron Girders, Roofs, Bridges, Tanks, Boilers, &c.  
Boat Girder, Tank Bridge and Boiler Plates.  
Angle, Tee, and Girder Iron.—Nail Rods, Tin Plates, Hoops, Sheets, Lead, Copper, Tin, Zinc, and Spelter.  
Hot and Cold Blast Pig Iron, &c., &c.

**MACHINERY FOR MINES AND SLATE QUARRIES**

SAWING, PLANING, DRESSING, and ROCK-BORING MACHINES  
FOR SLATE.  
WATER BALANCES, WATER WHEELS, WINDING and PUMPING MACHINERY; and PLANT of every description for MINES or QUARRIES.  
STEAM ENGINES—STATIONARY, MARINE, or LOCOMOTIVE.  
BOILERS and GIRDER WORK.  
SHAFTING, PULLEYS, and GENERAL MILLWORK.  
MACHINERY and GENERAL CASTINGS.  
SPUR and BEVEL WHEELS of any diameter or pitch moulded by machinery  
DE WINTON AND CO.,  
UNION IRON WORKS, CARNARVON.

**ORE-DRESSING MACHINERY.**

**SEPARATION TROMMELS.**—Cylindrical, double cylindrical, conical, double conical, and cascade trommels.  
**JIGGING MACHINES.**—Continuous, for coarse and fine sand.  
**CLASSIFIERS.**—For fine sand and slimes.  
**SHAKING TABLES.**—End and side blow.  
**BUDDLES.**—Concave, convex, and continuous.  
**PERFORATED PLATES.**—For Trommels, Jigging Sieves, and Stamps' Grates.  
For particulars, apply to—  
MESSRS. KEMMER AND CO.,  
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**WILLOUGHBY BROTHERS'****PATENT STEAM ORE STAMPER.**

The MOST SIMPLE and ECONOMICAL DIRECT-ACTING STEAM-ORE STAMPER in existence.  
Apply, for prices and particulars, to WILLOUGHBY BROTHERS, Foundry, Redruth; or Central Foundry, Plymouth.

**CRUSHER ROLLS.****THE SANDYCROFT FOUNDRY AND ENGINE WORKS**  
COMPANY (LIMITED),

Are now MANUFACTURING CRUSHER ROLLS of PECULIARLY HARD and TOUGH METAL, and are OPEN to UNDERTAKE the SUPPLY of ANY QUANTITY, and to any PATTERN REQUIRED.

Prices and particulars of the above, and of every description of Mining Engines, Boilers, Forgings, Pitwork, Water Wheels, Crushing, Dressing, and Amalgamating Machinery, and Mining Tools of all kinds, &c., &c., may be obtained on application at the works of the company,  
SANDYCROFT, near CHESTER; or at their London Office,  
MESSRS. JOHN TAYLOR AND SONS, 6, QUEEN STREET PLACE, E.C.

**WALKER'S ROTATING STAMPING AND CRUSHING MACHINE.**

The attention of MINERS and EXPLORERS is directed to the IMPORTANT ADVANTAGES which these machines offer, both for PROSPECTING and for PERMANENT MINING WORKS. They are light and easy of transport, and, having a high fall, do a large quantity of work, require little power, and always keep the face of the stamp square. Address—  
12, JAMES STREET, OLD STREET, E.C.

**THE BURLEIGH ROCK DRILL.**  
THE BEST AND ONLY PRACTICAL DRILL  
IT DOES NOT GET OUT OF ORDER.

PROGRESSES through Aberdeen granite at the incredible rate of 10' per minute.

SAVES £5 a day as compared with hand labour, independent of the enormous saving effected in the general expenses, such as PUMPING, VENTILATION, INTEREST OF CAPITAL, &c., from the fact of the "put out" being increased four-fold.

**DRILL POINTS.**—The saving in steel alone is considerable. One drill will go through 20 feet of Aberdeen granite without sharpening.

Orders received and executed solely by—  
**MESSRS. CHAS. BALL AND CO., of 26, NEWGATE STREET,**

E.C., LONDON,  
ENGINEERS, CONTRACTORS, and GENERAL MERCHANTS.

**MESSRS. OXLAND AND HOCKING'S****PATENT SELF-ACTING CALCINER,**  
FOR BURNING OR ROASTING TIN.

And other ores containing Arsenic, Sulphur, and other volatile matters.  
This calciner has now been in full operation for upwards of two years, and its efficiency may be judged by the following testimonials:

To Messrs. Oxland and Hocking.—We have pleasure in stating that your calciner has been in full work in these mines for upwards of two years, and continues to give every satisfaction. We believe it to be superior to any other kind of calciner yet erected for burning tin ores, the ores being better burnt, and effecting a great saving of fuel.  
(Signed) W. W. MARTYN, Manager.  
W. TREVENA, } Agents.  
W. H. PASCOE, }

The Devonshire Great Consolidated Copper Mining Company,  
Tavistock, 26th January, 1871.

During the past twelve months Messrs. Oxland and Hocking's patent revolving calciner has been in full operation at the arsenic works of these mines, and the result has exceeded our utmost expectations. The process is easy, regular, and economical, effecting a clear saving of at least 50 per cent. on the usual mode of reduction by means of ordinary furnaces.  
(Signed) JAMES RICHARDS, Superintendent.

Wheal Jane Mine, 2nd December, 1870.  
Messrs. Oxland and Hocking's patent calciner is in full work, and is a complete success.  
(Signed) WILLIAM GILES, Manager.  
WILLIAM GILES, Jun., Agent.

Pendarves United Mines, Camborne, 14th February, 1871.  
I have great pleasure in saying that your patent calciner continues to give entire satisfaction, and is capable of doing any amount of work if properly served. In the absence of the clerk, whose book will show the exact quantity of coal, I can only say we are consuming considerably less than half what we did with the ovens.  
(Signed) REGINALD T. GYLES, Purser and Manager.

Terms for erection, and every information, may be obtained on application to the Patentees—Dr. OXLAND, Comp'n Gifford, Plymouth; or to Mr. JOHN HOCKING, Jun., Trewirgie-terrace, Redruth.

**THE PATENT SELF-ACTING MINERAL DRESSING MACHINE COMPANY (LIMITED).****T. CURRIE GREGORY, MINING ENGINEER.**

OFFICES.—62, ST. VINCENT STREET, GLASGOW

This company grants licenses, under their patents, for the use, singly or in combination, of the most approved machinery for dressing ores, comprising Stamps, Jiggers, Side-blow Percussion Tables, Classifiers, and Buddies.

The whole in combination are in successful operation at Rhowydol Mines, Machynlleth, and the Bog Waste, Shropshire.

The Jiggers are largely used at the Van, Caldbeck Fell Mines, and at many mines, with unqualified success.

Self-acting Floors are in course of construction at various Mines in England and Scotland, regarding which Mr. GREGORY will be pleased to give information, answer all enquiries, and give orders for inspection.

He is prepared to give designs and estimates for the supply of Machinery, and for the laying out of Floors.

**LICENSED MAKERS FOR GREAT BRITAIN.**

Messrs. WILLIAMS, Fernan Foundry Company, Cornwall, for Cornwall west of Truro.

Messrs. WILLIAM WEST AND SONS, St. Blazey, for Cornwall east of Truro, to Callington.

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Mr. GEORGE GREEN, Engineer, Aberystwith, for the shires of Pembroke, Carmarthen, Cardigan, Radnor, Merioneth, Carnarvon, part of Montgomery, Flint, Denbigh, and Anglesea.

Messrs. EASTON AND TATTERSALL, Leeds, for part of Montgomery-shire, Cheshire, Shropshire, Derbyshire, Staffordshire, Isle of Man, and Yorkshire south of Ripon.

Messrs. PATTERSON, DAVIDSON, AND SPENCER, Hexham, for Northumberland, Cumberland, Westmoreland, Durham, and part of Yorkshire north of Ripon.

Messrs. THOMAS LAMB AND SONS, Glasgow, for Scotland.

All are licensed to make for Foreign Parts.  
T. CURRIE GREGORY, Secretary.

**THE NEW PETRIFYING SILICATE PAINTS,**

MANUFACTURED BY THE

**SILICATE PAINT COMPANY,**

Contain Silica in a peculiar form, extracted from a mineral of volcanic origin, only as yet discovered in a single deposit, rendering the surface of iron and wood indestructible and unchangeable, causing the paint to petrify; it has no chemical action like lead paints when applied to metal; it sets quickly, and dries as hard as marble; its covering properties are so much greater than ordinary paint that it is the most economical of all paints.

To SHIPWRECKERS.—It will stand intense frost or tropical heats, and resist the action of salt water.  
It is particularly adapted for flattening purposes, and all kinds of out and indoor iron and wood work, railway bridges and carriages, iron houses, ships' bottoms, mining plant, and all descriptions of wood and iron work.  
SUPPLIED IN ALL COLOURS.

THE PETRIFYING LIQUID, OR SOLUTION OF SILICA,  
FOR RENDERING  
BUILDINGS OF STONE AND BRICK, PLASTER, AND CEMENT WORK  
IMPERVIOUS TO DAMP.

**SILICATE PAINT COMPANY,**

24, FENWICK STREET, LIVERPOOL.

**THE HOWARD SAFETY BOILER,**

For STATIONARY and MARINE ENGINES, has the following advantages:—

SAFETY; NO RISK from DANGEROUS EXPLOSION; HIGH-PRESSURE STEAM, with ECONOMY OF FUEL; perfect circulation, and ready means of removing sediment.  
Saving of cost and time in repairs; portability, and, for export, great saving in freight.

Patentees and Manufacturers: J. and F. HOWARD, Britannia Iron Works, Bedford.

LONDON OFFICE: 4, CHEAPSIDE (three doors from St. Paul's).

**TITANIC STEEL AND IRON COMPANY, LIMITED**

SOLE MANUFACTURERS OF

**MUSHET'S TITANIC BORER STEEL,**

AND

Mushet's Titanic Cast Steel for Engineer's Tools, &c.

**FOREST STEEL WORKS, COLEFORD,**  
GLOUCESTERSHIRE.

The First Prizes of the Royal Agricultural Society of England.

**PORTABLE STEAM ENGINES,**

WITH ALL RECENT IMPROVEMENTS.

**HORIZONTAL FIXED STEAM ENGINES,**

PORTABLE THRASHING MACHINERY,

CORN MILLS, SAW BENCHES, PUMPS FOR IRRIGATION, &c.

**CLAYTON AND SHUTTLEWORTH,**

LINCOLN; AND 78, LOMBARD STREET, LONDON.

CATALOGUES SENT FREE BY POST ON APPLICATION.

**PATENT****SELF-LUBRICATIVE STEAM & HYDRAULIC ENGINE PACKING.**

This Packing is invaluable to all Users of Steam-Power; it supercedes anything of the kind ever invented; it is now in use in all the Chief Railways and First Firms in this Country and Abroad, and is

THE ONLY PACKING THAT WORKS WITHOUT OIL OR GREASE,

Does not char, is pliable, keeps the rods

COOL, BRIGHT, AND CLEAN,

And lasts longer than any other, thereby

SAVING FULLY 200 PER CENT.

To the User, in oil, labour, and material.

Can be had only from the Agents throughout the country, appointed by

THE SOLE LICENSEES,

**HENRY HOUSE AND CO.,**

CATHERINE STREET, CITY ROAD, LONDON, E.C.

Where also may be obtained, the LUBRICATIVE PACKING COMPANY'S

**ANTI-FRICTION CREAM OIL,**

Which Lubricates perfectly, keeps the Bearings Cool, and does not become Viscid or Glutinous.

## Meetings of Mining Companies.

### ALMADA AND TIRITO CONSOLIDATED MINING COMPANY.

The second half-yearly general meeting of shareholders was held at the offices, Finsbury-circus, on Monday.

Mr. HERBERT HEATH in the chair.

Mr. H. G. DENNIS (the secretary) read the notice convening the meeting. The report of the directors (which appeared in last week's Journal) was taken as read.

The CHAIRMAN said he was very sorry it devolved upon him to occupy this position to-day, owing to the indisposition of their Chairman; but such being the case he would make a few remarks before proceeding to move the reception and adoption of the report and balance-sheet. It would be seen that the revenue account, after providing for all their working expenses, for a certain amount of expenditure fairly chargeable to capital, and the interim dividend, left a balance of 1677. 19s. Probably it would be thought that that was a small sum to carry forward to the new account. The reason that the directors had decided upon declaring a dividend at the same rate as the former one was because, looking at the prospects of the mine, they did not think it advisable to reduce it, the more particularly as the additional 15 heads of stamps were no doubt by this time in operation. Mr. Clemes's last letter states that he "would not say anything more about the stamps until actually at work, which he expected would be in a very short time indeed." He might further mention that a bill of lading had arrived that morning of 31 tons of pitangue metal at the very moderate freight of 2s. per ton. This was the first shipment of pitangue metal, but sundry samples had been sent home, which had, upon assay by Messrs. Johnson and Matthey, yielded as follows:—

No. 1 Specimen.—Produce of copper, 63 per cent.; produce of silver, 209 ozs. per ton of 20 cwt. of ore.  
No. 2 Specimen.—Produce of copper, 31.5 per cent.; produce of silver, 1415 ozs. per ton of 20 cwt. of ore.  
No. 3 Specimen.—Produce of copper, 13.2 per cent.; produce of silver, 899 ozs. per ton of 20 cwt. of ore.  
No. 4 Specimen.—Produce of copper, 47 per cent.; produce of silver, 1213 ozs. per ton of 20 cwt. of ore.  
No. 5 Specimen.—Produce of copper, 26.5 per cent.; produce of silver, 638 ozs. per ton of 20 cwt. of ore.  
No. 6 Specimen.—Produce of copper, 29.2 per cent.; produce of silver, 139 ozs. per ton of 20 cwt. of ore.  
No. 7 Specimen.—Crushed ore; mark, 131 sacks—13,152 lbs. Produce of copper, 32.7 per cent.; produce of silver, 398 ozs. per ton of 20 cwt. of ore.

Therefore, they expected that these 31 tons on their way to this country would realise something over 1000. per ton. Their manager advised them that there were 6 tons more of pitangue as well as 15 tons of black ore at the port (which was 60 miles from the mine) waiting shipment. In order to get their ores home quickly arrangements had been made with the Panama and West India Packet Company, whose boats call at Mazatlan, to freight the rich ores home for 8s. per ton, and as these yield by assay 310 ozs. of silver and 29 per cent. of copper per ton, they would very well pay the cost of 12s. or 12l. 10s. per ton for transit from the mines to the Nine Elms Station, as they would leave a balance of profit of (say) 70l. per ton. The discovery of these black ores was a most satisfactory feature, and would, there was every reason to believe, prove another source of revenue to the shareholders. If Mr. Clemes could ship home monthly only 10 tons, worth (say) 70l. per ton, after deducting 20l. per ton for all expenses, that would yield a revenue of 700l. per month, irrespective of the results obtained from the 30 heads of stamps, and irrespective also of the pitangue. He had no hesitation in saying that if they could keep up the produce of pitangue at 3 tons per month, and keep the 30 heads of stamps in full operation, they would be able to declare dividends of at least 20 per cent. upon the capital of the company. (Hear, hear.) Mr. Clemes, under date April 10, says—

"The pitangue will be shipped direct from Mazatlan to Europe in a vessel chartered to take cedar wood. There are 6 tons more at Agiabampo, which we expect to ship in a coaster for Mazatlan within a few days, and we are about to send off 10 to 15 tons of black metal; this will be sent to San Francisco by steamer to avoid waiting for sailing vessel."

In a letter of April 15, received subsequently to the publication of the directors' report, referring to the Almada Mine, he says—

"The lode north of the slide continues to open out satisfactorily, and we are making fair progress driving north, for some time to come most of the ore obtained in this part of the mine will be from drives, rises, &c., and not from regular stopes, consequently the cost per ton for breaking will be higher than it will afterwards become. We have commenced sending the black metal to Agiabampo."

Another letter, dated April 24, received this morning, says—  
"Tirito.—Driving north we are making fair and uninterrupted progress. The lode on the eastern or footwall side contains black metal to the exclusion of the other kinds. Adjoining that we have grey coppery ores that work fairly on the patio. The western side of the lode, for about 15 ft. thick, is rather poor just now. At other points further south and closer to the slide the lode opened during the week is not so good as we found it previously, but it is very large, and we cannot expect constant uniformity of productiveness."

It was important to note that these black ores are similar to the black ores found by Senor Almada in such large quantities in Mina Grande, 440 ft. north. The former owners did not know how to treat these ores; as, however, they had been discovered at these two points, although at such a great distance from each other, it was but reasonable to conclude they would be found throughout the entire distance. If this should prove to be the case, there was sufficient of these black ores to last them for a very long time. The stopes above the tunnel continued in ore, and they were now ready for working at the end of the tunnel, and the shaft was being sunk, where they believed the lode when cut would be found much richer than in the tunnel. They had opened 200 ft. of ore ground in the Almada, without the Tirito at all. South-east of the tunnel the lode had been temporarily disordered, but at present exploratory workings had been suspended. That, however, was somewhat immaterial, for the ores at present were sufficient to keep their stamps fully at work. Providencia shaft was completely unwatered, and when communicated with the tunnel they would have the additional advantage of transit through it to the beneficiating works at the mouth, whence they calculated to open up a distinct source of income. The directors thought the shareholders had every reason to be satisfied with the result of the operations from February to the present time; and all he, in conclusion, could say was that all the information that had reached the directors since the publication of their report testified to the satisfactory condition and prospects of the mines. (Hear, hear.) He then moved that the report and balance-sheet be received and adopted.

Mr. FREDERICK SAUNDERS seconded the proposition.  
A SHAREHOLDER asked the freight of ores sent by steamer?—The CHAIRMAN said that it was 2s. per ton, but mentioned that the means of obtaining sailing vessels was very precarious, but when regular shipments could be sent it might be worth while for sailing vessels to call at the port.

The motion adopting the report and balance-sheet was put and carried unanimously, and a dividend was declared at the rate of 7½ per cent. per annum free of income tax.

The CHAIRMAN, in reply to a question, stated that the shares in the new company were paid by instalments, consequently there was a difference of 1d. per share, but from this day there would be no difference.

Messrs. F. Saunders and Walter Sharp were re-elected directors.—Messrs. J. Waddell and Co. were re-appointed auditors.

A cordial vote of thanks was passed to the Chairman and directors.  
The CHAIRMAN, having acknowledged the vote, stated that his colleagues and himself would continue to use their best endeavours to promote the prosperity of the company. He hoped the next time they met a larger dividend would be proposed, and the board had determined to form the nucleus of a reserve and a depreciation fund, so as to be able to equalise the dividends, and to renew the plant without calling upon the shareholders. (Hear, hear.) Shareholders might rest perfectly satisfied that they were the possessors of a durable mine that would last for a considerable number of years. (Hear, hear.)

### WHEAL BASSET MINING COMPANY.

The bi-monthly meeting of shareholders was held on Tuesday, on the mine.

Mr. R. ROSEWARNE in the chair.

There were present—Messrs. J. Dennis, R. Broad, H. Harris, G. Michell, Dr. Harris, J. Harris, J. Rickard, S. Davey, R. C. Nicholls, Hocken, J. Nicholl, J. Holman, and Pearce.

The accounts showed a net profit on the two months' working of 663l. The debit balance at the previous account being 959l., is thus reduced to 296l.

The report of the agents (Messrs. A. T. James, W. C. Trevena, W. H. Pascoe, and E. Richards) stated that the pitches under operation continue to yield about the same quantity of tin. The most important object seems to be the necessity of opening out deeper levels as quickly as possible.

The accounts were examined and allowed, and the balance ordered to be carried to the debit of the next account.

Upon the proposition of Mr. R. B. BROAD, the committee were re-elected. Mr. Broad being elected a member, the committee now, therefore, consists of Messrs.

R. Rosewarne, J. Dennis, H. Paul, W. Shilson, R. R. Broad, G. A. Michell, W. McKend, and Gieseler.

The CHAIRMAN said they had done their best, and the result was that they had arrived at a point which gave them a prospect of better times not very far off. They were assembled that day under very much more favourable circumstances than those which marked their last meeting. They hoped when next they met that their prospects would be still brighter. The adventurers were aware that since their last meeting there had been a great deal to undertake and undergo; they had had to change their manager, and to re-organise the whole of the mine, so that if they had not been able to do all that they hoped, they had done the best in their power, and would continue to do it yet. Still, in spite of all their difficulties, that there had been a change was evidenced by the profit of 663l. It was the sole object of the committee to develop the resources of the mine, and to endeavour to find in depth the riches which Wheal Basset possessed in former years, which he hoped would enable them at no distant date to return to dividends.

### WEST PANT-Y-GO SILVER-LEAD MINING COMPANY.

The third ordinary general meeting of shareholders was held at the offices, St. Helen's-place, on Monday, for the purpose of receiving the directors' report, a statement of receipts and expenditure, electing two directors in the room of two who retire, and transacting the general business of the company.—Mr. S. DAVIES in the chair.

Mr. F. R. WILSON (secretary) read the notice convening the meeting. The following reports were then read:—

The directors, in presenting their report, beg to state that the driving of the cross-cuts north and south, for which the company was started, are steadily progressing, but they regret to state that the old mine is not so productive for lead as it was, and the returns, therefore, have not been so good as they had reason to expect. The Hereth lode has not yet been met with, though the agents have been for some months expecting to intersect it. At an adjoining mine a very rich lode has been intersected, and it is supposed to pass through the West Pant-y-go sett. We have sold during the last six months lead ore amounting to 1735. 5s.; blende, 741. 7s. 3d.;—247l. 12s. 3d.; and during the past week lead ore amounting to 927. 8s.; blende, 451. 15s. 3d.;—138l. 3s. 9d.; total, 857l. 16s. Two of the directors retire from office.

June 2.—I beg to hand you my report of the workings at the above mine during the past six months. We stopped work at the 110, east of No. 1 winze, during the winter, in order to ease the engine and other expenses as much as possible; we have, consequently, only opened 4 fms. 1 ft. 11 in. Our object in extending this level is to intersect the run of ore ground worked on from the 102 upwards, as shown in the working section on the plan of the mine. The 75 fm. level cross-cut has been driven north 11 fms. 2 ft. 11 in., making 24½ fms. in all; but the new lode discovered at the Halkyn Level Mine, which runs parallel with the Pant-y-go lode, is about 10 fms. south, and if it continues its course through our mines we shall meet with it in about five months. The rock in the cross-cut is at present of the same character as for some time past. The 105 yard level cross-cut south has been driven 12 fms. 3 ft. 3 in., to intersect the Fron Mine lode, making 30 fms. The Hereth lode, as shown in the plan, and from which large quantities of lead ore have been raised, should, according to estimation, have been met with some time since, but we cannot tell to a day when we may strike into it. A very important discovery has been made in an adjoining mine, where a splendid bunch of lead has been cut; it is a cross joint, and it is believed that it will come through our sett. This will be proved in a short time, and if it should prove to be the same ore joint the chances of meeting with a good lode are very good. We have sunk and driven by way of trials in bottom of the 102 yard level 9½ fms., from which we have raised about 3 or 4 tons of lead ore; at present working on tribute, but nothing of importance to remark. We have only two pairs at work at the standard tribute, 140s. per ton. We have at present 18 men on tutwork, and 4 on tribute; total, 22 men. At surface we have, including the enginemen, smiths, and lander, in all 5 men; waste washers at the floors, 10; total, 37 men.—STEPHEN HARPER.

The CHAIRMAN moved that the report and balance-sheet be received and adopted. He stated that they were progressing towards the point for which the company was started, and there was every reason to believe that there was sufficient unexpended capital to attain the important objects they had in view. It was true they had been somewhat disappointed in not having met with more ore in the old workings, but that was immaterial when compared with the cutting of the Vron and Pant-y-go lodes, so highly productive in the neighbouring mines, which it was calculated would be done in about nine months from the present time. One lode, known as the Vron, was stated to be worth in the North Hendra Mine no less than 25 tons per fathom. The unusual hardness of the ground had retarded their progress, but in the cross-cut driving south the ground had become easier, and water was issuing from the forebreast, which looked as if they were approaching a lode.

Mr. W. MICHELL said that 12 months since the North Hendra Mine could have been purchased for 25,000l., but it could not now be bought below 100,000l. The ore from the Vron lode was equal to that from Tankerville. There could be no question that both the Vron and Pant-y-go lodes came through the West Pant-y-go sett. He did not expect anything of importance from the old workings, although the agent was under the impression that the best part of the ore still stood eastward at the 102 and 112; but the expense of testing that point would be considerable, as the engine (30-hp.) worked only at one stroke per minute, and they got the best coal in the district for 11s. 6d. per ton. The engine cost, including everything, did not exceed 15l. per month. The driving of the 50 was of itself a magnificent speculation. Should they not meet with anything of importance in the deeper workings they need keep the water only to the 75 to drive the cross-cut. Tributaries were at present working upon the old lode, from which had been raised 60,000l. worth of lead.

The motion adopting the report and balance-sheet was put and carried. The retiring directors, Messrs. J. Y. Watson, F.G.S., and S. Davies, were re-elected.—A vote of thanks to the Chairman terminated the proceedings.

### ROCHE CONSOLS TIN MINING COMPANY.

A general meeting of the adventurers was held at the offices, Finch-lane, on Thursday.—Mr. JAMES H. CROFTS in the chair.

The notice convening the meeting was read, and the minutes of the last confirmed. A statement of accounts was presented, showing a cash balance in favour of the adventurers of 107. 17s. 2d., and a balance of liabilities over assets of 206l. 17s. 2d.

The agent's report was read, as follows:—

June 6.—I beg to hand you my report, with estimates, &c., to complete the works and time required for the mine to be in a position to make regular monthly returns of tin. I beg to say the engine will be ready to start in a few days. We have also nearly completed fixing the 16 stamp-heads. The horse-frames and stamp-axle are also in their places, and the types or drags are fixed, and two round buddles are now nearly finished, and the tin-house will be covered in this week, and we are now making two ricks or frames for the dressing of the small tin. We are also engaged in making a path behind the stamps, which is to contain the ore, as for the stamps, and several other little matters we are getting on with, and from your own inspection of the works last week, and with this report, you will see that all things have been pushed on in keeping with each other. The engine-shaft is down about 7 fms. You will remember we cut in from the engine-shaft some time ago into the lode, and cut such a large stream of water that it prevented us from sinking the engine-shaft any deeper at that time, but now we have such dry weather, and the water having sunk in the engine-shaft within 6 feet of the bottom, I shall now draw out the water and commence sinking the engine-shaft at once, so that we may have a full supply of water for the engine-stamps and dressing-floors by the time the engine and stamps are started, which you will be sure to have by sinking the shaft a little deeper. I have before reported to you that you have several lodes in your sett, which we have laid open, and raised some good work for tin, so that we shall be in a position to supply almost any number of stamps from the supply of tinstuff from these lodes, and with the immense quantities of tinstuff left by the ancient miners, that can be put into the stamps at a good profit. And in sinking a winn-shaft near the stamps we have discovered another lode, which I have named Middle Lode. This lode is 9 ft. wide, and contains good work for tin, and it can be raised and put into the stamps at a cheap rate, as we can work this lode as an open cutting, and this lode alone will supply a great many stamps. I beg to say that this is a new discovery, and has never been reported to any meeting, as we have only a short time discovered it. In looking at the different lodes, and your prospects generally, I feel assured that you have a most valuable mine. The lodes contain good quantities of tin, which can be raised and sent to the stamps very cheap; and, on the other hand, the tin being of the first quality, and can be stamped and dressed at a very cheap rate, being no worse of any kind in the tin, it will realise the best price in the market. This is a most important feature in Roche Consols, and will tend to make the mine more valuable. I estimate that the time now required to complete all and everything mentioned in the commencement of this report—to finish and complete the dressing floors, lay down tramroad from shaft to stamps, with all its connections, &c., so that the engine and stamps be kept fully employed, will require a month from this time. You ought to calculate to provide for three months' cost before falling into the returns of tin, and the amount would be about 100l. per month, or 300l. in total. I have every reason to believe that the mine will make good profits to the shareholders. I have also men making lead to carry away the water from the mine down into the valley.—THOS. PARKYN.

A report was also read from Mr. George Henwood, M.E., a copy of which will be found in another column.

The CHAIRMAN, in moving the reception of the accounts and reports, said that the agent's report was eminently satisfactory, and, like Mr. Henwood's, would speak for itself. They were now upon the eve of starting the mine (the day fixed being July 1), and hoped to send their first batch of tin to market at the end of next month. Of course, no estimate could be made of the first month's sale, as the machinery would be new, and it would take some days to get it into thorough working order. He would particularly refer to the discovery made on one of the middle lodes, which, as would be seen from the report of Captain Parkyn, was quite a new feature, as the lode had not been heard of before. It was capable of being worked as an open cutting, which would very much decrease the cost of raising. From this lode alone the stamps could be fully employed. The shareholders would remember that they had five lodes in the sett, as well as the great elvan course of Castle an Dinas. They would start with 16 heads of stamps, which would be immediately increased to 22, and they intended eventually to have 100. He (the Chairman) concluded by formally moving the reception of the accounts and adoption of the report.—Mr. BRAUND seconded the motion, which was carried unanimously.

The CHAIRMAN said they had now come to the call. Capt. Parkyn estimated that the costs would be 100l. per month, or 300l. for the quarter. Their foundry

bills (which were included in the accounts) would not become due for nearly six months.

Mr. JAMES CROFTS proposed that the call should be 3s. per share. Mr. KIRK said that he thought it would be best to make a 3s. call now, and a small one at the next meeting. Another one, however, might not be required. After some discussion it was resolved that the call should be of that amount, payable within fourteen days.

Mr. BRAUND proposed a vote of thanks to Mr. J. H. Crofts for his services as Chairman and pursuer to the company. He thought the management of Roche Consols reflected great credit on him. A vote of thanks was then passed, and the proceedings terminated.

### EAST SHEBOYGAN MINING COMPANY.

A meeting of the preference shareholders was held at the office of the company, Lothbury, on Monday.

Mr. HORATIO NELSON in the chair.

The Chairman announced that the applications for preference shares had considerably exceeded the number offered for subscription, and that the allotment list was, therefore, filled up.

The following gentlemen were then unanimously elected directors of the company:—Messrs. Horatio Nelson, Major S. Yorke Martin, W. J. Valentine, F. W. O. Read, and Francis Grey.

Mr. G. B. ELLERY (the mining engineer) replied to a number of searching questions respecting the mine, in a manner which appeared to give satisfaction to those present.

We understand that the directors will at once take steps to have the statements made and the mine itself thoroughly examined and reported upon, in order to arrive as soon as possible at a decision respecting the value of the property before carrying out the purchase.

### GENERAL MINING COMPANY FOR IRELAND.

The half-yearly general meeting of shareholders was held at the offices, Westmoreland-street, on Monday.

Mr. REDMOND CARROLL in the chair.

Mr. THOMAS BAKER (secretary) having read the advertisement convening the meeting, the half-yearly report was submitted, as follows:

The directors have first to announce formally the fact, already known to you, that the sale of the Shallee Silver-Lead Mining Company, upon the terms set forth in the altered agreement approved of by the shareholders, has been completed. The portion of the purchase money received in cash and bills was applied partly in reduction of the company's debt to the Hibernian Bank, and partly in meeting other liabilities, and in carrying on the operations at Silvermines. The shares in the Shallee Company remain as an asset of the company, and as appear in the accounts. Consequently upon parting with the mine of East Shallee, the attention of the directors has become concentrated upon the working of the calamine deposit at Silvermines and the sale of the zinc ore in a raw state, as well as the manufacture from it of oxide of zinc; and, after much negotiation, a contract was concluded with a large smelting firm in Wales, whereby they agreed to take for a certain period a considerable quantity of the calamine ore at a price regulated by the percentage of zinc in the ore supplied, and the current price of spelter. The directors trust that a handsome profit will be realised if the standard value of spelter in the market equals the average of the last few years. Immediately upon the completion of the contract, preparations were begun for unwatering and working the calamine mine. When the company is in a position to raise the ore from the mine, they will at once commence the forwardings under the contract. The expense of carriage is so heavy in proportion to the value of the ore that the extent of the company's trade in it will be influenced very materially by the arrangements the directors may be able to make to obtain an economic system of transit. It should be here mentioned that the directors have re-opened the correspondence with the Great Southern and Western Railway Company on the subject of siding accommodation at the mines, to facilitate the rapid and cheap transit of the ores and oxides going from, and the coals and stores coming to, the mines; and that the railway company through its manager, Mr. Ibery, has manifested a disposition to grant an accommodation that would aid very materially the development and profitable working of your property. With regard to what has of late been the company's staple operation, the making and sale of oxide zinc, your directors have to report a steady increase in the quantity sold during the half-year. At the same time the difficulty of inducing buyers, who were in the habit of getting their supplies from America and the Continent, to try the home manufacture—combined with the fact that the foreign manufacturers were selling cheaper than formerly—made it imperative on your directors to reduce the price. They have done so, and by so doing they have extended their relations with the trade. In making up the accounts for the half-year your directors decided to deduct from the statement of the company's assets every item that was open to objection as not being an immediately realisable asset. They have dealt accordingly with the large stock of ores at Silvermines, Shallee East (not transferred with the mine), Ballinacorney, and elsewhere; and considering that the lists of stores on hands in each half-year had included many articles that should more properly be classed as parts of the working plant, and some of which went with the Shallee Mine, they have re-arranged the valuations in accordance with this view. They have also in estimating the value of the zinc oxide on hands, and of the debts owing to the company, made allowances for all probable deductions, including discount, commission, and carriage. As a necessary consequence of these corrections, the balance of assets now returned in the accounts may be regarded as an amount well within the value; and your directors trust to say that, owing to the many pressing calls upon his time, Mr. Joseph H. Townsend has had to resign his office of director. It is with much pleasure the directors announce that Mr. James William Lombard has consented to fill the vacancy thus created, and in recommending his appointment as a director and trustee of the company in the place of Mr. Townsend, the directors do so in the full confidence that the interests of the company will be served thereby.

The CHAIRMAN moved that the report and statement of accounts for the half-year be adopted, entered on the minutes, and circulated amongst the shareholders.—The motion was seconded by Mr. JOHN F. CONNELL, and unanimously adopted.

The CHAIRMAN next moved that Mr. James William Lombard be appointed a director, in the room of Mr. J. H. Townsend, resigned.

Mr. CONNELL seconded the resolution, which was carried.

Mr. E. McMahon and Mr. John D'Arcy were elected auditors, and, after transacting the usual business, the proceedings terminated.

### MINING NOTABILIA.

[EXTRACTS FROM OUR MINING CORRESPONDENCE.]

CAMBORNE, June 8.—The Mining Share Market has been firm during the week, and especially for tin mines, owing to a rise of 2l. per ton in the tin standard. The following have been mostly in demand:—Tincroft, Cook's Kitchen, Dolcoath, Carn Brea, South Condour, West Frances, South Frances, North Crofty, South Crofty, West Seton, Wheal Jane, Wheal Agar, East Lovell, Great Wheal Vor, and Trumpet Consols. Tincroft, 49 to 50, firm. Cook's Kitchen, 25 to 26; this mine is looking exceedingly well; it is generally expected at the next meeting of adventurers a dividend of 15s. per share will be declared. Dolcoath, 155 to 160; a general enquiry for these shares by parties in the neighbourhood for investment; the prospects of the mine are good, and especially in the bottom of the mine. Carn Brea, 100 to 105; a good deal of business has been done in these shares, and the mine is opening out beyond all expectation. South Condour, 5 to 5½; West Frances, 47 to 49; South Frances, 37 to 39; North Crofty, 2½ to 2½; South Crofty, 15 to 16; West Seton, 130 to 135; Wheal Jane, 35 to 37; Wheal Agar, 17s. 6d. to 20s.; East Lovell, 24s. to 26; Great Wheal Vor, 5½ to 5½; Trumpet Consols, 2½ to 2½, firm. The tin market is very firm, and on long we shall have a great advance.

At CWM VRON they have sampled a parcel of ore for sale on the 19th instant.

The HARLEIGH MINES have this week sold 500 tons of sulphur ore, which will be sent from the mines as soon as possible. Machinery for dressing the lead, blende, and copper is being contracted for early delivery and erection, so that no delay may take place beyond the time absolutely necessary for such extensive operations as are contemplated. The issue of a prospectus, with an illustrative diagram, showing as plainly as possible that the mine must become a dividend property at an early date, has caused a considerable demand for shares, at increased quotations. Large parcels have been disposed of this week.

EAST TERRAS.—The accounts from this mine fully bear out the reports hitherto issued, though by some deemed too sanguine. The East Terras was a rich lode, and position the district held in ancient and now revived in modern days. The sinking of the shaft proves the tin to be just under the "ferney mores," and has been proved to the depth of 40 fms. at the Terras, whilst at East Terras 45 fms. can be wrought above the adit. It is doubtful if another such property can be found in the country.

The ST. JULY AMALGAMATED MINES, on Friday, sold at Chyan-dour about 16 tons of tin, at 75l. 10s. per ton—1300l. The settings at these mines on Saturday comprised 60 tribute pitches, worked by 150 men and boys. There are about 50 men and boys underground on tutwork, &c.—total 200; and about 80 persons on surface, in all about 280 employed at these mines at present. The prospects are reported to be very favourable; and tributaries are earning good wages.

MINING IN ASHBURTON.—A commencement has been made in working the Whiddon tin mine, by clearing out the old adit and levels. The mine is supposed to have been worked at a very remote period—long before this was made a Stannary town, about 500 years since, and much tin was mined by the "Old men"—as the phrase goes with the miners—who carried it to Totnes on horses to be shipped.

BWLGH CONSOLS.—Ritchie's shaft, below the 70 fm. level, is sinking in good ore. This rise is 13 fms. above the point where it was expected to be met with. A good improvement has also taken place upon the north or main lode.

OKEL TOR.—Within a short period this mine has been transformed from a copper mine into a tin mine, and the surface is now covered with the necessary machinery, and more erecting for returning the tin. A new burning-house is also erecting to receive a revolving calciner. The lode in the two bottom levels is very large, and contains throughout most excellent work for tin. The tin sold has realised 72s. 3s. and 71l. 6s. per ton. These sales were effected before the rise in the standard.

TERRAS MINING DISTRICT.—This district (near St. Austell, Cornwall), since the discoveries in the TERRAS MINE, has very justly risen in the estimation of mining men and capitalists throughout England. It has been found that the stanniferous elvan improves in quality in depth, and Edwards's lode is very good. As soon as the engine has been set to work to drain it, good tinstuff can be raised at once, which will greatly enhance the sales of tin. EAST TERRAS, adjoining Terras Mine, is a very promising sett, only requiring capital to make it a dividend mine in a very short time. Only two or three men are working there at present, sinking a shaft, where 40 ought to be at work, and a stamping-mill, for which there would be ample supply of tinstone. There are

several mines in this district now either wholly or partially idle, which are likely at no distant period to be worked, as they deserve to be, with vigour. We beg to call our readers' attention to a map of this district, advertised in another column, by Mr. Symons, of Truro, who has long been known through his numerous maps, which have been found of great utility to mining men.

**WHEAL WHIDDON (Ashburton).**—This celebrated old tin mine will soon be cleared up, and the supposed rich lodes seen. Great expectations are entertained as to the results. It is reported by some old miners now living at Ashburton that a sink is put down in the bottom of the adit level, worth 160l. per fathom. The present agent, Capt. H. Rickard, will greatly oblige the public by reporting upon the progress.

**CRELAKE.**—This mine is likely to stop, after spending upwards of 120,000l. His Grace the Duke of Bedford has been asked to contribute a portion for a further trial, which the agents recommend doing. If he refuses, which he ought not to do, the mine is safe to stop.

**CHIVERTON MOOR.**—The unexpected discovery of a new rich lode just made at the bottom of the main shaft has greatly enhanced the value of this, one of the best of progressive mines. The lode east of the shaft is producing rich stones of lead, thus adding to the real value of the mine, as the lode can now be immediately cut into. This is apparently one of the main lodes from its next neighbour, West Chiverton.

**THE BOG.**—The new pumping-engine for this mine was started on June 1 in the presence of a large number of shareholders and others interested in Shropshire Mines. The engine, which is of 200-horse power, and has been erected by Mr. James, under the superintendence of Mr. E. F. Daniel, the company's engineer, was christened the "Lady Charlotte," in honour of Lady Charlotte Syter, the owner of the mine. The pit-work seemed to be properly fixed. The engine worked splendidly, and judging from appearances, should no unforeseen obstacle take place, or impediment arise from broken timber, &c., we see no difficulty in draining the mines to the bottom of the shaft. If but a fraction of what old miners say to be true as to the resources of the Bog now with the improved machinery at work, the Bog will fully realise the expectations of its most sanguine supporters, and eclipse the palmiest days of its past history.

**OLD TREBURGETT.**—A parcel of lead from this mine has been sold by tender during the week, to Messrs. Sheldon and Bush, for the high price of 28l. 12s. 6d., and also some silver ore from the capel of the lode, to Messrs. Vivian and Son, for a nearly equal amount—28l. 2s. These returns being so satisfactory, the directors have convened a meeting of the shareholders for the 15th inst., to authorise the issue of the remaining capital, to open out the mine in depth.

**WHEAL LUCY.**—The adit level has been cleared, and operations commenced on the Carbonate, the tin course of which is reported to be 18 ft. wide, producing rich work for tin. There is evidently a valuable mine here.

**NEW HINGSTON.**—A rich pile of tin work has this week been broken and hauled to surface. The works on the mine are progressing as fast as possible, and it is hoped that early in July next the water will be out of the shaft, now 20 fathoms below the adit. Near this point the two lodes (each of them rich for tin) will form a junction, and from present appearances tens of thousands of pounds worth of tin will be discovered. This mine is justly attracting great attention, 10 tons of black tin have already been sold from the adit at a depth of 6 fathoms, and large quantities still remain to be taken away at a cost which must ensure a profit.

**FLORENCE AND TONKIN.**—The 45 cross-cut, now being driven by eight men, will, it is believed, this month intersect the south copper lode, a most important point, and anxiously watched by the holders of these shares, as the magnificent lead lode may on leaving the copper lode be expected to be presently productive, judging from the splendid gossan at the back, and the large deposits of sulphurous mangle in that direction. A rich mine, independent of the tin, may soon be anticipated here.

#### WATSON BROTHERS,

MINING AGENTS, STOCK AND SHARE DEALERS, &c.  
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**SATURDAY.**—Market rather quiet. Carn Brea shares in demand at an advance. Tankerville, 18½ to 19½; Bog, 3 to 3½; West Frances, 48 to 50; Carn Brea, 95 to 100; Cook's Kitchen, 24 to 25; East Lovell, 24½ to 25½; East Grenville, 3½ to 3¾; Great Laxey, 17½ to 18½; Great Vor, 8½ to 9½; North Crofty, 2½ to 2¾; Parys Mountain, 3 to 3½; Pennerley, 4½ to 5½; Perkins Beach, 1½ to 1¾; Prince of Wales, 22s. to 24s.; Providence, 28 to 29; South Condurrow, 5 to 5½; Roman Gravel, 19 to 20; South Roman Gravel, 1½ to 1¾; Tincroft, 49 to 50; West Chiverton, 125 to 130; West Tankerville, 4½ to 5½; Wheal Grenville, 4½ to 5½; Wheal Ury, 6½ to 7½; Eberhardt and Aurora, 37½ to 38½; Pacific, 2½ to 2¾; Sweetland Creek, 4½ to 5½; Thornhill Reef, 30s. to 32s. 6d.; Utah, 21 to 25.

**MONDAY.**—Active demand for Bog shares at 3½ to 4; Pennerley, 5½ to 5¾; Carn Brea, 100 to 110; West Frances, 48 to 50; Pacific, 2½ to 2¾; Tincroft, 48 to 50 (ex div.); Cook's Kitchen, 24 to 25; Eberhardt, 38½ to 39½; Grenville, 4½ to 4¾; West Seton, 125 to 130; Van Conso, 32s. 6d. to 35s.; Great Laxey, 17½ to 18½; Tankerville, 18½ to 19½; Roman Gravel, 19 to 20; Devon Consols, 10s. to 110; East Grenville, 3½ to 3¾; New Beldon, 10s. to 12s.; Utah, 14 to 15 pm.

**TUESDAY.**—To-day the demand has been for Tankerville, 18½ to 19½; South Roman Gravel, 1½ to 1¾; Grenville, 4½ to 4¾; Eberhardt, 38½ to 39½; Perkins Beach, 2 to 2½; Bog, 3½ to 3¾; West Seton, 125 to 130; and Carn Brea, 97½ to 102½. Parys Mountain, 3 to 3½; Prince of Wales, 22s. to 24s.; Providence, 28 to 29; Tincroft, 48 to 50; Van Conso, 18 to 19; West Chiverton, 26 to 27; Pacific, 2½ to 2¾; Sweetland Creek, 4½ to 4¾; Thornhill Reef, 1½ to 1¾; Utah, 13 to 14 pm.

**WEDNESDAY.**—Market very active for Utah shares, which have advanced to 25. Grenville, 4½ to 4¾; East Grenville, 3½ to 3¾; Parys Mountain, 3½ to 3¾; West Frances, 48 to 50; Tincroft, 49 to 51; Cook's Kitchen, 24½ to 25½; West Seton, 127½ to 132½; Providence, 28½ to 29½; and Pennerley, 5½ to 5¾, also in demand. Tankerville flatter, at 18 to 19; also Roman Gravel, 19 to 20; Van, 47½ to 52½.

**THURSDAY.**—The demand to-day has been for Parys Mountain, 3½ to 3¾; Grenville, 5½ to 5¾; East Grenville, 3½ to 3¾; Utah, 24 to 25; and Ury, 6½ to 7½. Pennerley, 4½ to 5½; Bog, 3½ to 3¾; Van, 47½ to 52½; Roman Gravel, 18½ to 19½; Carn Brea, 95 to 100; Eberhardt, 38½ to 39½; West Frances, 49 to 51; and Tankerville, 17½ to 18, and flatter.

**FRIDAY.**—Market not quite so active. Parys Mountain at 3½ to 3¾; Utah, 24 to 25; Grenville, 5½ to 5¾; Prince of Wales, 22s. to 24s.; Great Vor, 8½ to 9½; Pacific, 2½ to 2¾; and West Chiverton chiefly dealt in. Bog, 3½ to 3¾; Carn Brea, 97½ to 102½; Cook's Kitchen, 24 to 25; Devon Consols, 97½ to 102½; East Lovell, 23 to 24; East Grenville, 3½ to 3¾; Great Laxey, 17½ to 18½; Hingston Down, 2½ to 2¾; North Crofty, 2½ to 2¾; Perkins Beach, 1½ to 1¾; Roman Gravel, 19 to 19½; South Condurrow, 4½ to 5½; South Roman Gravel, 32s. 6d. to 35s.; Tankerville, 17½ to 18; Tincroft, 49 to 51; Van, 47½ to 52½; West Chiverton, 26½ to 27½; Ury, 7 to 7½; and Thornhill Reef, 32s. 6d. to 35s.

The Bank of England return for the week ending on Wednesday evening showed in the ISSUE DEPARTMENT an increase in the "notes issued" of 363,655l., which is represented by a corresponding increase in the "coin and bullion" on the outside of the account. In the BANKING DEPARTMENT there was shown an increase in the "public deposits" of 451,101l., and in the "rest" of 49,091l.; together, 456,019l.; a decrease in the "other deposits" of 517,706l., and in the "seven day and other bills" of 20,544l.; together, 538,250l.—82,351l., and deducting this from 611,692l., the decrease in the "other securities" of the asset side of the account, there remains a total increase in the reserve of 529,441l.

Mr. H. E. Towle, of New York, has secured a patent for silvicing the inside of lead pipes of almost any length, thus preventing any fluid passing through the pipe from acting on the deleterious metal lead. The pipe to be plated is filled with a solution of cyanide of silver, and it is connected with a sufficiently powerful voltaic battery, one pole of which is a bar of pure silver.

#### LEAD MINING IN WALES.

### WEST RHOSWYDOL MINE

Is situated a FEW MILES from the town of MACHYLLLETH, and is locally considered to be a PROPERTY of HIGH PROMISE. Peculiar interest is attached to it by reason of its immediate proximity to a number of the most valuable mines of the district, amongst which Dyflid, Rhoswyddol, Cwmbyr, and Cae Conroy are the most noticeable; nearly all the lodes traversing these sets, and from which their valuable returns of ore are procured, converge in West Rhoswyddol set, and at their junctions are expected to make great deposits of ore.

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MR. GEORGE HENWOOD HAS REMOVED HIS OFFICES to No. 1, LORNE TERRACE, STOKES NEWINGTON GREEN, LONDON, to which all letters for him are respectfully desired to be addressed.

Mr. HENWOOD is prepared to give advice on all matters connected with mining. Having just returned from Cornwall and Devon, he is prepared to advise of some mines certain to advance in value very shortly. Consultation fee, 2s. 1s.

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#### BRITISH, COLONIAL, AND FOREIGN PATENTS, REGISTRATIONS OF DESIGNS, COPYRIGHTS, TECHNICAL TRANSLATIONS, DRAWINGS, &c.

MICHAEL HENRY, Mem. Soc. Arts, Assoc. Soc. Engineers, Compiler of the "Inventors' Almanac," and the Author of the "Defence of the Patent Law."

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Offices, 63, Fleet-street, E.C., London, corner of and entrance in Whitefriars Street.

**PUDDLING-FURNACE.**—The invention of Mr. SIMEON BURN, Belleville, U.S.A., consists in the application of a cooling device to the under side of the bottom plate of puddling furnaces, and in improvements in the arrangement of the chills, placed above the bottom plates, for the protection of the latter, and to make them more efficient and durable. To effect this, air is admitted under the bottom plate, and distributed over the surface by means of curved ribs attached to the bottom plate, and the chill for the upper side is effected by means of a forked or branch hollow casting, through which air is also admitted, both airways being connected with the chimney, so as to secure a regular and uniform draft to cool the plate.

**SULPHURIC ACID.**—The invention of Mr. H. DEACON, Widnes, relates to the production of sulphuric acid, and consists in the employment of salts of copper, such, for example, as the sulphate, or of metallic compounds possessing similar properties to those hereafter described in conjunction with hydrochloric acid and sulphurous acid gases, together with oxygen or air, and either with or without the presence of aqueous vapour, so that sulphuric acid and chlorine may be produced.

**REDUCTION OF MANGANESE.**—Messrs. MASON and PARKES, Birmingham, take the oxide, chloride, or other compound from which the manganese is to be reduced, and mix therewith carbon or carbonaceous matter, such as coal dust or plumbago. Both the manganese compound and the carbonaceous matter are employed in a state of fine division, and are intimately mixed together, a large excess of the carbonaceous matter above that required for the reduction of the manganese being employed, the object of this excess being the prevention of the caking or fusing together of the materials while under the reducing process. The mixture of manganese compound and carbonaceous matter is placed in a furnace or vessel of iron, clay, or plumbago, or other material suited to be employed in the reductions of metals. Heat is applied to the mixture, atmospheric air being carefully excluded. The inventors employ a clear red heat, and continue its application from five to twenty hours, or longer. By the prolonged application of this low cementing heat, the reduction of metallic manganese from the manganese compound is effected. After the mixture has cooled the metallic manganese is found in grains mixed with the unoxidised carbon. By washing or sieving the carbon may be separated from the manganese.

**TUNNELING.**—The invention of Mr. T. F. HENLEY, Pimlico, consists of a tool holder or head adapted for receiving chisels or tools suitable for cutting rock. This tool holder is combined with an arm or shaft, the two together being called the ram head and ram shaft, or collectively the ram. This ram is mounted by suitable connections on a main frame or base plate, which is fitted with wheels or skids and guide rollers for the purpose of advancing or withdrawing the machine, as may be required. The ram is made to receive a fore and aft movement of percussion from any suitable motor, simultaneously with a horizontal motion to the right or left, and vice versa, by means of mechanical arrangements, as follows:—At the front end of the machine, and as nearly as possible to the ram head, the inventor places a ball or balls, or spherical bodies, underneath the ram shaft, which ball or balls are borne upon a plain surface provided for the purpose. Upon these balls the ram is free to move horizontally in any direction to and fro and laterally. The to and fro motion of percussion is given by the power as aforesaid; the lateral travel is provided for, and the intervals or spaces between the blows of the ram and its chisels are regulated by means of a ratchet movement, or equivalent contrivance, operated during the back stroke of the ram.

**DOUBLE-ACTING PUMPS.**—According to the invention of Mr. J. BAIN, Liverpool, two working barrels, the one larger in diameter or area than the other, are employed. These are placed in the same line. One hollow ram, formed with a blind end, is used for both barrels, the external surface of the ram working in contact with the internal surface of the large barrel, and the internal surface of such ram with the external surface of the smaller barrel.

**ROLLING IRON.**—Mr. J. CLARK, of Blairst, employs rolls provided with axes placed alternately in horizontal and vertical positions in any required number to the series, and upon each of these he forms two or more grooves, gradually differing in shape or dimensions, according to the character of the article to be produced; and two or more piles, billets, or such other preparations of metal may, therefore, be passed through the machine at the same time, the rolls being driven at varying speeds in proportion to the attenuation. The metal may be heated in any ordinary manner, and may be drawn from the furnace by the action, as is now practised in some instances. The inventor also makes use of a series of rolls with their axes in the same plane, and through which the heated metal is consecutively drawn. These rolls are provided with grooves which gradually bring the metal to the required finished form, and they are geared with suitable wheels or friction surfaces for causing their speeds to vary in proportion to the drawing out of the metal.

**LONDON GENERAL OMNIBUS COMPANY.**—The traffic receipts for the week ending June 4 were 12,242l. 2s. 7d.

### Mining Correspondence.

#### BRITISH MINES.

**ASSHETON.**—W. Johns, W. Tipton, June 6: We are forcing on the driving at the 10 from Lindow's shaft, and even in this soft part of the lode we are meeting with occasional stones of ore; this looks very encouraging as we are approaching the ore ground. A stope in the back of the adit level is worth about 7 cwt. of lead ore per fathom. Gundry's shaft is down about 7 fathoms towards the next level, and the sinking may be considered satisfactory. At Maw's shaft we have made good speed in timbering down the same complete to the 20, from which place we are now drawing the stuff. The men will now be engaged for a short time clearing up a pile of stuff, in order that we may stop the back of the level, where the lode is worth 20l. per fathom. At surface winding-gear is attached to the little engine for drawing the stuff at Lindow's shaft, which works well.

**BEDFORD UNITED.**—William Phillips, June 8: The lode in the shaft at the 115 is about 2½ ft. wide, composed chiefly of fluor-spar and spar, with a little mangle and ore, and is a kindly, promising lode. Driving by the side of the lode, east and west of the shaft, is commenced at this level. There is no change to notice in any other part of the mine since last report.

**BLAEN CAELAN.**—John Evans, June 7: Engine-Shaft: The men are still cutting through the lode on the north side of bottom of the shaft (21 fathoms below adit); the lode is very strong, it is cut into between 4 and 5 feet without sign of the north wall; it is composed of blue-slate and spar, strongly spotted with lead, and is of a most promising character. The stope in the 10 ft. level, below adit, has much improved, and that with the two other stopes in the adit will each produce an average of 1½ ton of lead ore per fathom.—Main Adit North: The end is much the same as when you were underground last week, though I think the cross measure of ground is getting harder, and the water is certainly now behind the end on the eastern side of this level, and coming from near the two joints of spar which were cut about a fortnight since. I shall take two of the men from the end to drive a few fathoms east on these joints, for I think it will prove to be the north lode pinched up by the influence of this cross-course.—Main Adit South: The men are making good progress with this cross-level. Our dressing operations are much hindered by the great drought—every spring about here is quite dry.

**BLUE HILLS.**—S. Bennetts, A. Gripe, June 3: There is no material change to report on during the past week. The lode in the 13, east of Polyeur, continues promising, and worth 6l. to 7l. per fathom. The drawing of the stuff through the Wheal Joy shaft, from the 50, has been commenced.

**BOG.**—Wm. Nancarrow, J. Lean, June 7: On Thursday last we started the 70-in. pumping-engine (the largest in the county), and are glad to say it was one of the most successful starts ever witnessed; it goes on to work remarkably well, the pumps and all connected with it are doing their work with great satisfaction, especially the 60-fathom plunger-lift of wrought-iron pumps; we would remark this is the longest plunger-lift in the whole district. We have lowered the forking-lift to the 70, and we expect to have that level dug by the end of this week, forking at the rate of 3 ft. in 24 hours. In consequence of our reservoirs running rather low we shall be obliged to fix the house-lift as soon as possible to supply the engine with condensing water, and also for dressing purposes. We have the greater part of the lift on the mine, we shall require fifteen 30 cwt. pumps more to complete it, and we have written four or five parties to know if they have any second-hand, and the price delivered at Matherley. The 20 tons of ore sampled on May 29 is all ready to be delivered as soon as we know the purchaser.

**BRONFLOYD.**—Thomas Kemp, June 1: Settings for June: No. 1 Shaft—North Lode: Four men to cross cut the lode north from the 36 west, at 260s. per fathom, stent 1 m.; there is no change in the character of the lode; it is still hard and slow for progress.—No. 3 Shaft: North Lode: Six men to open the lode to the north of the main drive, and to the west of wine, in the 84, at 100s. per fathom; the lode is not looking quite so well, nor worth from 2 to 2½ cwt. of ore per cubic fathom. Four men to stope the lode to the east of wine, in this level, at 80s. per fathom; the lode is worth 1 ton of ore per cubic fathom. Four men to extend the 73 west, at 270s. per fm.; the lode is yielding 2 tons of ore per fathom. Two men to drive the 73 east, at 140s., yielding about 10 cwt. per fathom, and opening out good stopping ground. Six men to stope under the 62, at 50s. per fathom: the lode is yielding 2 tons per fathom. Four men to stope east of wine, in the 62, at 50s. per fathom, worth 1 ton per fathom. Six men to stope the backs of the 62, at 105s.; the lode is worth 2 tons per fm. Arise north of the lode, at 55s.; the lode is worth 1 ton per fathom. We have a very large quantity of overstuff broken underground, which it is useless to draw to surface pending the completion of our lower dressing-floors; and as there is a great drought of water, we are enabled to apply its force solely to pumping objects, and the very considerable extension of the underground workings. The 40 is still being timbered. We sold 70 tons of ore on Wednesday, at 12l. 17s., but none of this sampling is from the lower level of the mine. The masons and biters are making good progress with the extended and revised floors; we shall possess every requisite and modern appearance when completed, and our sales of ore will be considerably increased.

**BRYNAMBOR.**—George Spargo, June 3: The engine-shaft is sunk below the 12 ft. level 3 fms., the lode in which is becoming harder, producing lead on the south part of the shaft. A slight improvement has taken place here during the past week; the north part of the lode is much the same as last reported on. The 12 ft. level is driven west of cross-cut 1 m. 2 ft., the lode in which is considerably improved, and yielding some good lead, with every appearance of a further improvement, but owing to the scarcity of surface water for hauling purposes, the men employed in the driving of the lode for the present, the men who were employed I shall put on Monday stopping in the stope west of the winze sunk below the adit level (see longitudinal section), and at the same time secure the stope, east of the winze, so as to take away the lead in that part also. I trust we shall soon have a change in the weather. The reservoirs will not take much longer in completing. The holidays have somewhat impeded our progress. The mine throughout has improved during the past week. All things in operation I will push on as fast as possible.

**BRYNAMBOR.**—John L. L. N. COLEMAN, June 8: We have laid down the tram rails on the surface to the rich tin ground west, and are now tramming into the stamps from this part of the mine. I shall be able to report next week as to the yield of tin. The mine is looking well.

**CARGYNON.**—T. Hodge, June 6: In the 60 ft. level cross-cut, north of engine-shaft, our progress is slow; we are fast draining down the water from the 60, but are not yet through the branch; it is, however, wider and better defined than ever I saw it before, yielding some strong stones of blende and mangle on occasional spots of lead. In the 50 west end we are now engaged shooting down the grey part of the lode; so far as seen it is yielding much the same as for some time past—12 cwt. per fathom. In the 40 west end the lode is showing signs of improvement, yielding some very good stones of lead. The stopes are turning out much as usual. We shall sample on Saturday next our computed quantity of ore. The machinery throughout the mine is working well.

**CAPE CORNWALL.**—R. Pryor, J. Davey, June 6: Saturday last being our pay and setting, we set the following bargains:—The 100 ft. level cross-cut to the 60, north of engine-shaft, by 2 men, at 16l. per fathom; the ground in this end is of the same character as it has been for some time past, 14 fms. to drive east of cross-cut, by two men, at 4l. per fathom; the lode is 2 feet wide, composed of mangle, peach, spar, and spots of tin—a very kindly lode. The 100 to drive west of cross-cut, by two men, at 4l. per fathom; the lode is 18 in. wide, composed principally of peach and mangle, with a good appearance.

**CAMBORNE VEAN.**—Joseph Vivian and Son, Nicholas Clymo, June 7: The stopes in back of the 106, on Town lode, are producing 2½ tons of copper ore per month. In driving the 106 west, on the same lode, we calculate on a son finding the branches of ore consolidating and making one good lode, which we have not may be expected. We have 12 tribute pitches on tin ground. The tribute increasing, and daily finding tin ground on different lodes of a profitable character. We sampled on the 5th inst. 150 tons of tinstone of good quality, being superior to the average of the mines of the district.

**CARADON AND PHENIX CONSOLS.**—J. Kelly, June 5: No. 1 lode, at the 60, driving west of the engine-shaft, is presenting a beautiful appearance; the lode is full 6 ft. wide, carrying a leading branch 2 ft. wide, and yielding very good work. The lode in the 50 west is still continuing all that can be desired for being a very productive ore driving west, the lode will average for the last 14 fms. from driving 2½ tons of blende ore per fathom; from an assay made it is found to be of the best quality, and will realise as high a price as the average price of copper ore for the last quarter. We have suspended driving the end for the present, and have put the men to rise and stope the back of the level, as the air is very bad in the present end. We shall put up an air-machine as quickly as possible to be worked by the engine, when we shall resume driving the end. I am pleased to say that the prospect of the mine is very good indeed. We are very busy putting up a crusher, and will get it to work as speedily as possible. We have already from 40 to 60 tons of blende ore on the floors waiting for the crusher, when it will be sent to market; we are adding to the pile daily.

**CARN CAMBORNE.**—Henry Bennett, June 3: The stopes are now cutting trip-plate below the 85. At the 85 the south lode, east of eastern cross-cut, is worth 10l. per fathom for tin; the same lode, east of western cross-cut, 25l. per fathom for copper and tin, and west 9l. per fathom for tin. The western drive, on the north lode, is small and poor. The 70 west, on south lode, is worth 8l. per fathom for tin. The winze sinking below this level is down 9 fms., and worth 12l. per fathom for tin. A stope in bottom of this level, on the north lode, is worth 14l. per fathom for copper and tin. At the 60 two stopes below the level, west of wine, are yielding, respectively, for tin 12l. and 10l. per fm. Two stopes east of wine, one worth 12l. per fathom and the other 10l. Another stope east of shaft is worth 10l. per fathom. At the 50 the north lode east is worth 8l. per fathom for tin, and west 10l. per fathom for copper. At the 40 the same lode west is worth 6l. per fathom for tin.—N.B. The directors beg to call the attention of the shareholders to the fact that the mine is looking remarkably well.

**CASTLE AN DINAS.**—Thomas Parkyn, June 8: We are making good progress in sinking and securing the incline-shaft, and shall be down to the 15 in a few days. We are raising some rich work for tin from this shaft. All things are going on well, and the mine opening up most satisfactorily.

**CEFN BRWYN.**—J. Paul, June 6: The sinking of the engine-shaft below the 92 is progressing favourably, now being sunk at the rate of about 3 fathoms per month. The lode in the 92 west is still disordered, but producing good stones of ore at times, and we expect an early improvement here. We have two stopes over this level west, in which 12 men are employed, and where the lode is from 4 to 6 feet wide, worth on an average 1 ton 5 cwt. of lead ore per fm. In the stope over this level east the lode is 5 feet wide, and yields 16 cwt. of lead ore per fathom. The lode in the 80 west is improving, and contains good branches of lead ore. The lode in the stope over this level, west of shaft, is 9 feet wide, producing ½ ton of lead, and 18 cwt. of blende ore per fathom. In the 80 east the lode is 4 feet wide, containing some good blende and spots of lead, with indications for an improvement. The lode in the stope over the 56 east is worth 1 ton of lead ore per fathom. The drawing, dressing, &c., with the cutting of wheel-pit, and raising stone, is being urged on with utmost speed.

**CHIVERTON MOOR.**—G. E. Tremayne, W. Bennetts, June 3: The 116 ft. level to drive east and west, by twelve men, at 4l. per fathom; the lode in the eastern end is producing good stones of lead—a kindly lode; the lode in the western end is 2 ft. wide, and worth 4 cwt. of lead per fathom. The 103 ft. level to drive west, by six men, at 5l. per fathom; the lode is 2 ft. wide, and presenting a kindly appearance. The 105 ft. level to drive east, by three men, and two boys, at 2l. 16s. per fathom; the lode is 3 ft. wide, composed of flookan, quartz, mangle, and a little lead. The 95 ft. level to drive west, by six men, at 3l. per fm.;

## Barleach Silver-Lead, Copper, Zinc, and Sulphur Mining Company

(LIMITED),

Incorporated under the Companies Acts, 1862 and 1867.

CAPITAL £25,000, DIVIDED INTO 5000 SHARES OF £5 EACH, FULLY PAID-UP.

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EDWARD R. BANNER, Esq. (E. R. BANNER AND CO.), Roscoe Chambers, Liverpool.

The Hon. AUGUSTUS JOCELYN, Army and Navy Club, S.W.

THOMAS POOCOCK, Esq., Lansdowne Road, London, W.

BANKERS—IMPERIAL BANK, Leithway, London, E.C.

SOLICITOR—JOSIAH BERRY, Esq., Walbrook, London, E.C.

SECRETARY—MR. FRAS. H. HEARN.

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#### ABBRIDGED PROSPECTUS.

The sett is very extensive, and is traversed by several lodes of the richest description. Operations have been carried on for several years, and considerable profit has been realised from sulphur ore alone, which article is used for the manufacture of sulphuric acid. The works are now in a position to return about 40 tons per day, quite irrespective of the silver, lead, and copper ores.

The sulphur ore is only one of the products of these veins or lodes; the most valuable yield consists of silver-lead, copper, and zinc.

The sulphur ore is deemed by practical miners to be only the surface indication of a vast deposit of lead ore. Presumptive evidence of the fact is afforded every fathom the ground is being explored. This is in perfect consonance with all great permanent lead mining properties.

It has been ascertained by the workings that the abundance of the more valuable ores which exist can be rendered highly remunerative at a comparatively

small outlay, and in a brief period. The mine has been and still is a profitable concern, and its value will become greatly enhanced, and continual dividends may with every certainty be relied upon.

Any further information required by subscribers may be obtained upon application at the offices of the company, as also an order to inspect the property.

MR. THOMAS SPARGO, STOCK AND SHAREDEALER, 224 and 225, GRESHAM HOUSE, OLD BROAD STREET, LONDON, E.C., recommends the immediate purchase of Shares in the following mining companies, i.e.—Harmony and Montague (tin and copper, Redruth, Cornwall); Barleach (silver, lead, copper, zinc, and sulphur), Merioneth; and East Terrace (tin), St. Stephen's, Cornwall. Full particulars on application.

The adit level; the lode is large and promising, yielding occasional rich stones of lead ore. In the adit, driving east on Warm Water lode, from Potter's Pit shaft, there is no change. We shall sample 60 tons of lead ore on Friday next, the 9th instant.

**HOLLOWAY'S PILLS WILL EFFECT A CERTAIN CURE** of head-aches, biliousness, loss of appetite, and lowness of spirits. These Pills can be taken without danger from wet or cold, and require no interruption of business or pleasure. They act mildly on the bowels, strengthen the stomach, and promote a healthy action of the liver, whereby they purify the blood, cleanse the system, and invigorate the whole system. They give a truly wonderful change in a debilitated constitution, as they create a healthy appetite, correct indigestion, remove redundant bile, rouse a torpid liver, and decisively dispel giddiness, headaches, and palpitation of the heart. Plain directions for the use of this medicine, at once both mild and efficacious, are affixed to each box.



Bog, 3½ to 3¾; the lead sold on Monday last realised 233½. The engine, the finest in the county, is working well, and the mine will be drained to the 70 in the course of a few days. The prospects of the mine are of a very high order, and the experts in the district anticipate that when the mine is drained the 60 will prove one of the most important in this great mineral district. Tankerville, 18½ to 19½; the mine looks exceedingly well. There is a solid course of lead ore in the bottom of Watson's shaft below the 102; the other parts of the mine without alteration since last report. Perkins Beach, 2 to 2½; the improvement in the lode in pump-sump, below the 20, is not only holding but increasing.

The advance in tin has brought in buyers for shares. Tincroft, Carn Brea, and Great Wheal Vor have been chiefly enquired for, and prices remain steady with an upward tendency. In copper mines the only feature to note has been an advance in the price of Parys Mountain; the mine is said to be looking well, and the great deposit of talcous is said to have a considerable commercial value. Cape Copper and Devon Great Consols are steady. The following are the closing quotations:—Caegnyon, 1 to 1½; Devon Great Consols, 102½ to 107½; Great Laxey, 17½ to 18½; Great Wheal Vor, 8½ to 8¾; Marke Valley, 6 to 6½; Tincroft, 49 to 50 ex div.; Van, 52 to 54; East Van, 8 to 9; West Chiverton, 26½ to 27; Almada, 1½ to 1¾; Cape Copper, 7 to 8 prem.; Colorado, 5½ to 6½; Don Pedro, 1½ to 1¾ premium; Eclipse, 1-16th to 3-16ths prem.; Pacific, 2½ to 2¾; St. John del Rey, 29 to 30; Taquaril, ½ to ¾ dis.

**TIN TRADE.**—The Standards of Tin Ore were advanced on Tuesday, and are now as follows:—Common, 120s.; superior common, 121s.; fine, 122s.; superior fine, 125s.

The COLORADO UNITED GOLD AND SILVER MINING COMPANY, with a capital of 120,000£, in 12,000 shares of 10£ each, is the title of an undertaking formed for the purpose of working the well-known mine—the California—situated in Colorado, in the centre of the Nevada mining district, near Central City, and comprising 600 ft. in length on the Mother Vein of the belt of lodes passing through the district. It is described as a true fissure vein, and one of the largest and noblest on the continent of America. Between Jan. 1, 1869, and Oct. 1, 1870, the California Mine yielded \$566,136, upon a working cost of \$259,835, leaving a net profit of \$306,301, or upwards of 54 per cent. of the gross receipts—this is equivalent to 34,377£. per annum, or over 25 per cent. on the total capital of the present company. It is mentioned that this result was obtained with the imperfect mode of working by several district parties, and that since Oct., 1870, only a portion of the mine has been worked by lessees, the greater part of the work having been stopped through the pending contract for sale of the whole mine. The present reserves are estimated at 52,800 tons, and valued at 316,000£, the whole of which, it is calculated, may be extracted at a net profit of about 50 per cent. (158,000£) in the course of two years. During this period the mine can be opened to a greater depth, which is regarded as an important feature, inasmuch as the ore improves in quality the deeper the vein is worked. The purchase-money is 100,000£, of which 30,000£ is payable in fully paid-up shares. Mr. George Teal, a practical mining engineer, who was specially commissioned to inspect this and other properties in Colorado, concludes an exhaustive report by stating that if the California Mine be faithfully worked on true principles he is confident that the rate of production and proportion of profit will far exceed the estimates.

The HARLEIGH SILVER-LEAD, COPPER, ZINC, AND SULPHUR MINING COMPANY, to which frequent reference has been made in the Journal, has issued its prospectus. The capital is fixed at 25,000£, in shares of 5£ each. The sett is described as being very extensive, and traversed by several lodes of the richest description, and it is mentioned that operations have been carried on for several years, and that considerable profit has been realised from sulphur ore alone of which about 40 tons per day can now be returned, quite irrespective of silver, lead, and copper ores. Sales of sulphur ore have been effected at a price which leaves 12s. per ton profit, and offers have been received to contract for as much as can be produced at similar rates. The sulphur ores, however, is only to form a secondary product with the present company, the most valuable yield consisting of silver-lead, copper, and zinc ores, which have hitherto received little attention, owing to the sulphur being the chief object of the former proprietors' operations. Should the anticipations of practical miners be borne out, that the sulphur ore is but a surface indication of a vast deposit of lead ore, the value of the property will be enhanced. The purchase-money is fixed at 15,000£, of which 9000£ is to be in fully-paid shares. The agents who have inspected the property report favourably upon its prospects. A specimen of the sulphur ore has been found to contain 52 per cent. of sulphur, and it is estimated that the cost of the stone ready for shipment will be from 8s. to 10s. per ton.

The MACHINE TUNNELING COMPANY, with a capital of 30,000£, in shares of 5£ each, for the purpose of acquiring and working the patents for tunnel driving machinery recently granted to Captain Beaumont, M.P., and Mr. C. J. Appleby, C.E. The machine has been practically tested, and has given great satisfaction. Mr. T. J. Bewick, C.E., of Haydon Bridge, certifies that under unfavourable circumstances they progressed at the rate of about 15 yards in a month, and that it is subject to but little wear and tear. Compared with ordinary manual labour, it is estimated that the work done was about double. The machine has the advantage that it can work several drills simultaneously, and, as each drill can bore an inch a minute in the hardest granite, its power will readily be appreciated. If a reliable mode of setting the diamonds in the drill-head could be discovered the machine would be as near as may be perfect, but as the diamonds cost 10s. or 12s. each, and quickly work out of the setting, involving stoppage of the machine to seek for and replace the diamonds, the annoyance is considerable. The company is not bound, however, to use the present machine, so that there is a good opening for the inventor of an improved mode of setting, or of an improved machine altogether; and as the directors are gentlemen of great influence, and of considerable practical experience, it will be of importance to an inventor to obtain their co-operation. Mr. David Forbes, F.R.S., estimates that the machine is capable even at present of tunneling at nearly twice the rate above mentioned.

At Wheal Mary Ann meeting, on Tuesday, the accounts for the quarter ending March showed a profit of 526£ 9s. 5d. A dividend of 512£ (10s. per share) was declared, and 1555£ 18s. 11d. carried forward.—[The agents' report is among the Mining Correspondence.]

At West Wheal Kitty meeting, held at the mine, on Wednesday (Mr. J. B. Reynolds in the chair), the balance-sheet, showing a balance of payments over receipts of 364£ 4s. 5d., was adopted, and resolutions agreed to approving the sale by public auction of the 118 forfeited shares in London in one lot, on the 13th of this month, and the declaration of call was deferred until after such sale.

At Pen Allt Mine meeting, to be held this day (rendered necessary by the informal character of that held a few days since), resolutions will be submitted authorising the directors to raise additional capital.

The Colorado Terrible Lode Mining Company have issued the directors' report, with accounts for the twelve months ended 31st March last, being the first year of the operations of the company. The revenue account exhibits a net profit of 7310£ 1s. 2d., a little over 7 per cent. on the capital of the company. Of this sum two dividends, of 2s. 6d. and 2s. per share respectively, have been paid, absorbing 4725£. The directors are, therefore, in a position to recommend the payment of another dividend, of 1s. 6d. per share (making 6 per cent. on the transactions of the first year), payable on 15th July, on all shares standing in the register on the 30th inst., which will amount to 1575£, and leave 945£ 18s. 9d. to be carried forward to the accounts of the current year. From the beginning of the month of May the directors are advised that the yield of ore, of all grades, each month, will be largely in excess of the monthly product of the mine since the company obtained possession. The directors, therefore, while they regret the delay which occurred in the completion of the tunnel, feel justified in anticipating a very favourable return during the current year. The work hitherto done in the mine has been little more than to develop it to its present condition, but it is now evident that the lode is continuous, and that the mineral veins increase in richness as depth is attained, while a large mass of ore is exposed for immediate profitable working. The agent calculates that there are 1100 fms. between the tunnel head, the ends of the levels, and the main shaft, now open for stoping; this extent of ground, it is believed, will yield 500 tons of first-class ore, and large quantities of second and third-class ore, the value of the two last being sufficient to pay all expenses in Colorado. To work out this space will, perhaps, take 18 months; meanwhile, the levels west of the 240 ft. winze will be pushed on, and a shaft sunk from the tunnel level, with a view to more extended operations.

Advices from the United States mention that several gentlemen connected with the Reading Railway Company had been purchasing large quantities of the valuable coal lands in the Schuylkill and Mahanogoch coal regions, with the object of forming a company to work effectively the district. The undertaking would receive considerable support from the Philadelphia and Read-

ing Railway Company, authority having been given at a meeting of shareholders for holding the stock. As it is claimed that the land which has been acquired is capable of yielding from 10 to 15 million tons of coal per annum for many years to come, the directors of the railway consider that they have adopted a course from which great advantages may be expected to be gained.

In consequence of a requisition signed by a very large number of the most influential shareholders, the board of the Ebbw Vale Steel, Iron, and Coal Company (Limited) have decided that the approaching annual meeting of the company shall be held this month in Manchester.

#### MINE MATERIALS.

**TENDERS** are invited for the SUPPLY OF COAL, CANDLES, TALLOW, OIL, GRASS, IRON, STEEL, NAILS, LEATHER, and all other description of MINE MATERIALS. The coal to be delivered at Garra's Wharf, Truro, and all other goods, free of carriage, at West Chiverton and other mines in the neighbourhood of Truro, Cornwall, from the 1st day of July next to the 30th day of June, 1872. For particulars, apply to the Manager, Capt. J. L. P. Garra's Wharf, Truro; or to the Purser, RICHARD GLOVE, Liskeard. Sealed tenders, addressed to the Purser, Garra's Wharf, Truro, will be received on or before Friday, the 23rd inst., not later than One o'clock P.M. Dated Liskeard, 5th June, 1871.

#### TO ENGINEERS.

**WANTED, for BUDNICK CONSOLS MINE, a 60-inch cylinder PUMPING ENGINE, with BOILERS, complete, and all the necessary FITWORK (not less than 14 inch), to fork the mine 50 fms. below the adit level, which is 40 fms. from surface.** Apply, with particulars, to Mr. JOHN WRIGHT, 12, Copthall-court, E.C.

**WANTED, an EFFICIENT CLERK at an IRONWORKS, to TAKE the MANAGEMENT of the ACCOUNTS.** No one need apply who has not been experienced in the office of an ironworks, and who cannot produce testimonials of adequate knowledge and integrity of character. Applications, stating salary required, to be sent to Mr. ANDERSON, Westbury Iron Company, Westbury, Wilts.—June 8, 1871.

#### AIR PUMP.

**WANTED TO HIRE FOR THREE OR FOUR MONTHS, a good treble-barrelled AIR PUMP, 1 in. or 1½ in. diameter delivery pipe.** Description and terms to be sent to E. H. LLOYD, Llanelly Railway, Llanelly.

**WANTED TO PURCHASE, a GOOD SECONDHAND 12 in. to 18 in. diameter cylinder ROTARY STEAM-ENGINE, with or without BOILER.** Apply, stating particulars, with lowest cash price, to W. G. ROBERTS, Gladslir Mines, Dolgelly, N.W.

**A FELLOW of the CHEMICAL SOCIETY, well acquainted with Mineralogy and Mining, is OPEN to an ENGAGEMENT to INSPECT and REPORT upon MINING PROPERTIES in GERMANY in the month of July.** Apply to Mr. WM. EDWARDS, 4, Coleman-street-buildings, Moorgate-street, London.

#### COPPER MINE FOR SALE.

**THE DALENO MINE, most advantageously situated on the BANDAK LAKE (which is navigated by steamers), in THELEMARK (BRATSKBERG), NORWAY, IS TO BE SOLD, a bargain.** For particulars, apply to—J. H. FASMER AND SON, Bergen, Norway.

**THE MOST CELEBRATED NICKEL MINES, with the METALLURGICAL WORKS and ESTABLISHMENTS attached thereto, in SCHLADMING, UPPER STIRIA (AUSTRIA), the property of HERSDORFF, Esq., are TO BE SOLD.** For information, apply to ALBERT MILLER, Esq., Professor at the Imperial Mining School in Leoben, Stiria, who has kindly consented to give particulars.

**CHEAP HOUSES FOR COLLIERIES AND WORKMEN.** Four, five, and six-roomed Houses, built with 9-inch hollow brick wall, from working drawings by JNO. P. HARPER, M.E., Derby. Set of five lithograph working Plans, with Sections, coloured..£1 12 6 Coloured in detail .. 2 2 0 Particulars, with estimates of cost, on application.

**FOR SALE, FIVE HUNDRED YARDS OF PERMANENT WAY RAILS, 7½ lbs. per yard, with FISH-PLATES, CHAIRS, and SLEEPERS complete, suitable for Colliery Sidings; also TWENTY TONS OF FLAT-BOTTOM TRAM RAILS.** Apply to—FIELD'S MERCANTILE COMPANY (LIMITED), SHREWSBURY.

**ADVANCE IN THE PRICE OF TIN.**—The Kit Hill mining district bids fair to be as rich as Carn Brea. We recommend with confidence three or four tin mines here, which are being vigorously worked, and have been obtained by the various companies under singularly favourable circumstances. Shares in these mines have advanced during the last week 25 per cent., and are now selling at a very small price, considering the present productiveness of the mines. Investors will do well to apply at once to T. VOSPER and Co., East Cornwall Mining Office, 3, Crown Chambers, Threadneedle-street, E.C.

**NATIONAL PROVINCIAL BANK OF ENGLAND, BISHOPSGATE STREET, corner of Threadneedle Street, London, E.C., June 6th, 1871.**

The Directors of the National Provincial Bank of England hereby give notice that a HALF-YEARLY DIVIDEND at the rate of EIGHT PER CENT. PER ANNUM, and a HALF-YEARLY BONUS of SEVEN PER CENT., will be PAYABLE on the Company's Stock on and after the 10th day of July next, when the Dividend and Bonus Warrants may be obtained at the company's office, No. 112, Bishopsgate-street (corner of Threadneedle-street), or at the different branches. The Transfer-books will be closed on and after Saturday, the 10th day of June, until the Dividend and Bonus become payable. By order of the Court of Directors, E. ATKINSON, Joint General Manager, W. HOLT, Managers.

**OLD TREBURGETT SILVER AND LEAD MINING COMPANY (LIMITED).**—Notice is hereby given, that an EXTRAORDINARY GENERAL MEETING of the shareholders of this company will be HELD at these offices, on THURSDAY, the 15th inst., at Two o'clock, for the purpose of authorising the directors to issue the remaining capital of the company. By order, J. H. TILLY, Secretary. 1, Circus-place, Finsbury-circus, London, E.C., June 6, 1871.

**THE BIRDSEYE CREEK GOLD MINING COMPANY (LIMITED).** Notice is hereby given, that a GENERAL MEETING of shareholders in the above company will be HELD at the company's offices, 144, Austinfriars, E.C., on TUESDAY, the 20th inst., at Twelve o'clock precisely. By order of the Board, W. J. LAVINGTON, Secretary. The Transfer-books will be closed from the 12th to the 26th inst., both days inclusive. 9, Union-court, Old Broad-street, London, E.C., June 9th, 1871.

**THE CASTLE AN DINAS TIN MINING COMPANY (LIMITED).** Capital, £10,000, in 5000 shares of £2 each, fully paid.

#### ABBREVED PROSPECTUS.

This company commenced a little before Christmas, and although the operations have been confined almost to the surface, it is already in the position of making a profit, besides having done a large amount of deadwork to get the mine in fair working order.

The mine is steadily improving, and the managers are now carrying out the works of extension so much recommended by all mining authorities for the further development of the mine, by which the returns of tin and profits of working will be largely increased. In consequence of this extension and development, the directors are authorised to issue a few of the unallotted shares of the company at par. Dividends of £10 per cent. per annum are guaranteed for three years, from the 1st of January last. The first half-year will be paid next month, and allottees who shall send in their applications not later than the 15th of June will participate in the dividend.

Investors should read the report of Mr. George Henwood, the eminent mining authority, which appeared in the *Mining Journal* of the 13th of May. Copies of Mr. Henwood's report, and the prospectus of the company, may be had on application at the registered office, St. Columb, Cornwall.

Applications for shares may be made to the Secretary, at the company's office, as above, and should be accompanied by a remittance.

**BENJAMIN LIBBY, MINE SHAREDEALER, CAMBORNE, CORNWALL.** Offers the following SHARES FOR SALE:—2 West Frances, £48. 5 Cook's Kitchen, £25½. 2 Carn Brea, £101. 5 East Lovell, £25½. 5 Great Vor, £8 12s. 6d. 5 Tincroft, £50. 10 Wheal Agar, 20s. 10 So. Condurrow, 25s. 10 Rosewall Hill, 25s. 10 North Croft, £2 7s 6d. Wheal Bassett and Grylls wanted; seller please state lowest price cash.

**MR. JOHN CARTER, MINE AND SHARE DEALER, CAMBORNE, CORNWALL** (Son of the late Thos. Carter), transacts Business in every description of shares at close market prices of the day. References exchanged when required.

**MESSRS. LISCOMBE AND CO., 89A, SOUTH CASTLE STREET, LIVERPOOL, MINING SHARE BROKERS.** Have the BEST and LATEST INFORMATION on all the LEAD MINES of WALES and the NORTH OF ENGLAND, and on all AMERICAN MINES, and are in a position to transact business in most of them at closest market prices. Messrs. LISCOMBE and Co. issue monthly the "Liverpool Mining Circular," containing special information on all the leading Welsh Mines, which can be had on application.

#### ZINC AND LEAD ORES.

**I BUY at the HIGHEST PRICES:—** BLEND—CALCINED and RAW CALAMINE (carbonate or silicate). LEAD ORES.—LEAD-SILVER ORES.—SILVER ORES. ZINC AND LEAD ORES MIXED TOGETHER. SILVER LEAD in a rough state (containing antimony, &c.) SULPHATE OF LEAD, &c. I BUY any quantities, however large, contracting for as many years as desired. Particulars by letter. ARMAND FALLIZE, Ingenieur, à Liège (Belgium).

**THE LONDON AND PROVINCIAL INVESTORS' SHARE EXCHANGE (POWELL, DIXON, AND CO.), 26, CHANGE ALLEY, LOMBARD STREET, LONDON, E.C.** BUY and SELL every description of Stocks and Shares at close market prices net. Exclusive and reliable information on all the market news.

**GEORGE BEDFORD AND CO., 10A, KING'S ARMS YARD, E.C., SWORN BROKERS, BUY and SELL all classes of SECURITIES at the closest prices, and, from many years' experience, are prepared to give advice to investors in Railways, Banks, Foreign Bonds, and British and Foreign Mines.**

**INVESTORS in SEARCH of GOOD SOUND PROPERTIES,** paying 10 to 20 per cent. per annum, should send for the Sixth Edition of "BRITAIN'S METAL MINES," price 1s., or free per post 1s. 1d. A complete Guide to their Laws, Usages, Localities, Statistics, and Share Market. By JOHN R. PIKE, Crown-chambers, Threadneedle-street, London.

**MESSRS. J. BLICK AND CO., STOCK AND SHAREDEALERS, 9, GRACECHURCH STREET, LONDON, E.C.** J. B. and Co. will only advise their clients to purchase in bona fide stocks, from selections made based upon long experience, calculated to be marketably remunerative, and dividend-paying. Securities of every description dealt in for cash or account.

We strongly advise the immediate purchase of Great Wheal Vor and East Liangyug. (We can offer 55 of the latter at £3 each, or any portion of them.) These shares will have a considerable advance. It is confidently believed they will go to £20 per share: 40 tons of lead have just been sampled and sold from this mine, and another large parcel is being got ready for the market, which will give a guarantee of the bona fides of the property. 50 shares FOR SALE in CERN CONSOLS—an offer wanted. For shares, &c., apply to—J. BLICK AND CO., 9, GRACECHURCH STREET, LONDON, E.C.

**MR. R. PERCY ROBERTS, FINANCIAL AGENT, 60, ENGLISH STREET, CARLISLE.**

**CAPTAIN ABSALOM FRANCIS, GOGINAN, ABERYSTWYTH, MINING AGENT, ENGINEER, AND SURVEYOR.** The great success which is attending the opening and working of the Mines the counties of Cardigan and Montgomery, and the many properties placed at the disposal of Capt. ABSALOM FRANCIS, induces him to offer his services, either to ADVISE, INSPECT, REPORT, or SURVEY, for Mining Companies or private shareholders. For terms, apply to Capt. ABSALOM FRANCIS, as above.

**DICKER'S AUSTRALIAN AND LONDON MINING AND GENERAL AGENCY, 4, ROYAL EXCHANGE AVENUE, E.C.** Established in 1868.

The fullest and reliable information relative to Australian Gold Mine Investments can always be obtained from the undersigned. THOMAS DICKER, (Late Editor of the "Mining Record," Melbourne).

**GENERAL MINING OFFICES, BEDFORD FOUNDRY, TAVISTOCK, CONDUCTED BY MR. CHARLES F. COLLOM, MINING ENGINEER, AGENT, AND SURVEYOR.**

Who undertakes the entire local Management of Mines, including Dripping, making accurate Underground Communications and Plans, at a stipulated salary. Mines inspected and faithfully Reported on, orders for which purpose should be made for Mr. Colloim, or his Agent. Promoters of New Mining Enterprises (which will bear the strictest scrutiny) rendered every assistance. Investments in Mines arranged for Capitalists,—the condition of the companies, as well as the prospects of the Mines, being first strictly investigated.

Mr. COLLOM having long seen the desirability of an office in the immediate neighbourhood of the mines as a medium, not only for reliable information but for the prudent investment of capital, takes this opportunity, in connection with his Patents, of making the above announcement, and trusts by continuing to exercise a sterling attention to the interests of his clients, and a judicious selection of mineral property for investment, which his long acquaintance with the district enables him, he will establish his offices with a lasting reputation, and retain for Mining the rank among commercial enterprises which so noble and honourable a pursuit deserves when legitimately carried out. Mr. COLLOM has lately surveyed extensive Mineral Properties, and, for immediate operation, selected two most valuable Tin Mines, in one of which ample water power is available. Capitalists desirous of investing can do so upon very advantageous terms by making early application.

**MESSRS. CAMERON AND CO., SHAREBROKERS, CHESTER,** having a thorough knowledge of the Lead Mining Districts in Wales, are ENABLED to FURNISH the BEST and MOST RELIABLE INFORMATION on all WELSH LEAD MINES.

Messrs. CAMERON and Co. devote special attention to British Mining Shares; they also transact business at close market rates in American and other Foreign Mines, as well as Bonds and Stocks of every description. A FEW SHARES FOR SALE in a VALUABLE COLLIERY that will pay a high rate of interest, and special business operations in Scotland Creek Gold Mine, Roman Gravel, Tankerville, and Perkins Beach Mines. OFFICES: BRIDGE STREET CHAMBERS, CHESTER.

| LEAD ORES. |                           |       |                |                       |
|------------|---------------------------|-------|----------------|-----------------------|
| Date.      | Mines.                    | Tons. | Price per ton. | Purchasers.           |
| May 31—    | Pool Park .....           | 10    | £12 13 0       | Delafield Company.    |
| June 2—    | Minera .....              | 100   | 12 4 0         | Walker, Parker, & Co. |
|            | — ditto .....             | 91    | 12 4 0         | ditto                 |
|            | — ditto .....             | 31    | 12 4 0         | ditto                 |
|            | — ditto .....             | 60    | 12 7 6         | ditto                 |
|            | — ditto .....             | 56    | 12 7 6         | ditto                 |
|            | — ditto .....             | 72    | 12 7 6         | ditto                 |
|            | — Cargill .....           | 117   | 17 4 0         | Trefry's Trustees.    |
|            | — Great Laxey .....       | 100   | 20 10 0        | Bucorn Company.       |
|            | — Green Hurth .....       | 20    | 12 10 0        | London Lead Co.       |
|            | — Old Treburgett .....    | 5     | 23 12 6        | Sheldon, Bush, & Co.  |
|            | — Glogfawr .....          | 30    | 12 17 6        | Weston, Son, & Co.    |
|            | — Frongoch .....          | 125   | 11 12 0        | Walker, Parker, & Co. |
|            | — Goginan .....           | 28    | 16 7 0         | ditto                 |
|            | — East Darren .....       | 73    | 15 15 0        | P. Glover.            |
|            | — Bog .....               | 20    | 11 13 0        | Peter Glover.         |
|            | — Foxdale .....           | 100   | 22 15 0        | Panther Company.      |
|            | — Van .....               | 185   | 12 9 0         | Walker, Parker, & Co. |
|            | — ditto .....             | 110   | 12 14 6        | A. Eytton.            |
|            | — ditto .....             | 60    | 12 12 6        | ditto                 |
|            | — ditto .....             | 50    | 12 13 0        | Burly Port Co.        |
|            | — ditto .....             | 25    | 12 9 0         | ditto                 |
|            | — Talargoch .....         | 15½   | 12 13 6        | Walker, Parker, & Co. |
|            | — ditto .....             | 15½   | 12 13 6        | A. Eytton.            |
|            | — ditto .....             | 168½  | 12 15 6        | ditto                 |
|            | — Trelogan .....          | 34    | 12 6 6         | Walker, Parker, & Co. |
|            | — Holywell Level .....    | 13    | 11 0 0         | ditto                 |
|            | — Deep Level .....        | 20    | 12 1 6         | ditto                 |
|            | — Gladstone .....         | 3     | 10 18 6        | A. Eytton.            |
|            | — Vagstaff .....          | 30    | 10 7 6         | Walker, Parker, & Co. |
|            | — North Henblas .....     | 7     | 10 16 6        | ditto                 |
|            | — ditto .....             | 3½    | 5 5 0          | A. Eytton.            |
|            | — Bwastrain Consols ..... | 25    | 11 2 6         | ditto                 |
|            | — Blwich Consols .....    | 30    | 13 14 6        | Stock and Co.         |
|            | — Roman Gravel .....      | 125   | 12 3 6         | —                     |

| BLEND.  |                 |       |                |                     |
|---------|-----------------|-------|----------------|---------------------|
| Date.   | Mine.           | Tons. | Price per ton. | Purchasers.         |
| June 2— | Minera .....    | 100   | £ 3 17 6       | Richardson & Co.    |
|         | — ditto .....   | 74    | 3 17 6         | ditto               |
|         | — ditto .....   | 70    | 3 18 0         | Bagillt Company.    |
|         | — ditto .....   | 51    | 2 16 0         | Tindale Company.    |
|         | — ditto .....   | 30    | 2 16 0         | Bagillt Company.    |
|         | — Talacra ..... | 65    | 4 3 0          | W. Vivian and Sons. |
|         | — Van .....     | 100   | 3 0 6          | Dilwyn and Co.      |

| BLACK TIN. |                             |                |               |                       |
|------------|-----------------------------|----------------|---------------|-----------------------|
| Date.      | Mines.                      | Tons c. q. lb. | Price p. ton. | Amount.               |
| June 2—    | St. Just Amal. 14 13 2 4 .. | £75 10 0       | £1108 2 0     | Bolton & Son.         |
|            | — ditto .....               | 1 6 0 0        | 71 13 0       | ditto                 |
|            | — Wheal Unity .....         | 16 12 1 18 ..  | 70 5 10       | 1267 13 8—Redruth Co. |
|            | — W. Godolphin .....        | 2 16 3 17 ..   | 74 5 0        | 211 5 0—Bolton.       |
|            | — Pen-an-drea .....         | 11 9 2 16 ..   | 77 12 6       | 891 6 0—Blisac.       |
|            | — Penhalla .....            | 8 2 12 0 ..    | 78 15 0       | 639 12 8—Daubux.      |

| COPPER ORE. |                     |              |                |                    |
|-------------|---------------------|--------------|----------------|--------------------|
| Date.       | Mines.              | Tons c. q.   | Price per ton. | Purchasers.        |
| June 1—     | Caldbeck Fell ..... | 7 11 3 ..... | £18 12 6       | Bibby, Sons, & Co. |
|             | — ditto .....       | 15 6 2 ..... | 7 4 0          | ditto              |

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**A PRACTICAL TREATISE on the GASES MET WITH IN COAL MINES, and the GENERAL PRINCIPLES of VENTILATION.**  
By the late J. J. ATKINSON,  
Government Inspector of Mines for the County of Durham.  
London: LONGMANS, GREEN, and Co.  
Newcastle-upon-Tyne: ANDREW REID.

### Notices to Correspondents.

\* Much inconvenience having arisen in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be filed on receipt: it then forms an accumulative useful work of reference.

**HIGH-FALL STAMPS.**—Having read both the articles and letters in the Journal about high-fall stamps, I may, perhaps, be permitted to ask why the writers have not stated the exact increase or decrease of power required to work them? I cannot understand how a high-fall can be got without increasing the distance between the stamp-rod and the lifter-shaft, and if this be done, the lifter must be lengthened, and the leverage increased. Is this compensated for by any arrangement which has not been described?—R. F.

**THE DIAMOND DRILL.**—I have seen it stated that the difficulty practically of using the diamond drill arises from the readiness with which the diamonds get out of the setting. Will some correspondent kindly state the average size of the diamonds, and the present mode of setting?—J. K.

**ROCK-DRILLING.**—Some years since an improved rock-drill was described in the Mining Journal—I think it was invented by Messrs. Abegg and Richards. I do not know if any patent still exists, nor can I learn of its being used in any of the mines. Perhaps some of your correspondents can give a little information concerning it.—F. W.

**"Lead Agent."**—The matter in dispute had better be settled by each of the parties concerned paying an agreed portion of the amount that may be arranged as due for labour and materials. Those in possession benefit by the outlay, which appears to have been legitimately incurred in increasing the value of the property.

**COAL IN IRELAND.**—Information respecting the Mineral Wealth of Ireland is always acceptable: and the proposed letters of "Erin," as well as any others we may receive, will meet every attention.

**GEM.**—The remarks respecting the management of this mine are not adapted for publication. If objection is taken to any new arrangements representations to that effect should be made to the captain, who will doubtless remedy, so far as he can, any matters which may have occasioned dissatisfaction.

**STREET TRAMWAYS.**—I was watching the cars on the Westminster and Brighton line a few days since, and observed that it seemed to be great labour for a fine pair of horses to pull an empty car up to the end of the line near Westminster Bridge, although the incline is extremely small, and should, therefore, be glad to learn whether the wear and tear of the horses is greater on the trams than on the common road. I am aware that the cars carry twice as many passengers as the omnibuses, or thereabouts; but, if there be twice the wear on the horses, so much could not be said of the advantage. Another thing was, that the extra labour at a slow speed, compared with that when the vehicle is in swing, appeared much greater with the cars than with the omnibuses—How is this? The cars do not appear to travel above five miles an hour, but I do not know whether this is the usual speed over the whole line.—G. C.

**BRAZILIAN MINES.**—We could not insert the letter signed "A Dissatisfied Holder," &c., without its being properly authenticated. If the event notified is certain, the writer and friends will have an opportunity of expressing their opinions, without having recourse to anonymous letter writing.

**THE NEWPORT ROLLING MILLS.**—It should have been stated in the article upon these works, published in the Supplement to last week's Journal, that "the ordinary puddling-furnaces consume about 34 cwt. of coal per ton of puddle bar," and that a "horizontal steam pump" fills the tank to supply the puddler's boiler, &c.

**DIRECTORS' FEES.**—"A Shareholder" should attend the next meeting, make any enquiries he may wish, and then state his opinions. The matter will thus obtain the publicity he desires.

Received—"T. G. D."—"J. H."—"G. L. and Co."—"J. W. M."—"J. T."—"W. G. H."—"Aurora"—"M. P."—"C. J. R." (Denver)—"A Crow on the Gem Viaduct."

## THE MINING JOURNAL, Railway and Commercial Gazette.

LONDON, JUNE 10, 1871.

### THE HERACLEA COAL MINES.

One thing we sometimes find ourselves doing in the *Mining Journal* is turning the same subject over and over again every few years, and not unnaturally, because where there are real resources, and enterprise is directed to them from time to time, they occasionally engage public attention. One of these subjects is the Heraclea coal field, in Turkey, which has engaged our attention more than once in the last 17 years, and on which our volumes contain some very useful information. We first took up the matter during the Crimean war, and now we learn the working has been undertaken by a large combination, having its head quarters in this country; and as we find it is going on in earnest, and there is very likely to be a demand on the public for capital before long, we shall proceed to remind those likely to be interested what Heraclea coal is.

Indeed, so far as that goes, coal in Turkey will take many by surprise, but it is an old story, not quite so old as that of copper, however. We have found a stray reference in quite an out of the way book. This is BROWN'S travels in Syria, &c., published in 1792, and which refers to the working of coal on the European side of the Bosphorus some years before that time. This coal was the lignite, which has been heard of in late years, and which was used for some time in Constantinople, but through a dispute about the privilege the working ceased, and all about it was forgotten till the lignite was re-discovered. We believe there are very large deposits of usable lignite within 12 miles of Constantinople, and if one of the tramways now being laid down there be extended to the deposit there may be a considerable consumption. We have recorded that about 1864 Mr. ROBERT C. MAY, C.E., was employed to survey a line there, but it came to nothing. There are coal deposits of one kind or another besides those at Heraclea, which have now come into working on a very small scale. There is one pit used for a cotton factory in Macedonia. In the Smyrna district there are two lignite workings, for liquorice factories at Naslu and Sokieh. The latter turn out about 5000 tons yearly of inferior friable lignite, which decomposes in two or three days, but which is trusted to account. The fine deposits on the Smyrna and Cassala Railway are done nothing with, although Mr. C. E. AUSTIN has surveyed a branch line.

The deposits which have for many years given a considerable out-turn are those of Heraclea, or Eregli, on the north coast of Asia Minor, on the Black Sea. The coal formation is reckoned at not less than 40 miles long, and the French geologists have reckoned it at 100 miles long and 10 miles wide. At all events, there is enough known and open to furnish a very respectable trade. Even in the early period of the Crimean war, when the collieries were taken in hand by the English Government, the workings were soon brought into good yielding. We have seen the figure put at 200,000 tons in one year, but we doubt this.

As we have said, the collieries were brought into notice and worked by our Government during the Crimean war. About 1,000,000 tons of coal were being used in the Black Sea at that time, causing great pressure on the freight market. The mines were, therefore, turned over to our Government during the war by the Turkish Government, put into good order, tramways laid down, improved shipping arrangements introduced, and an increasing yield obtained. When the Turkish Government got the mines back they considered they had a good thing. The mines formed part of the Civil List, and as those were the good old times, Heraclea was turned to account in the accustomed fashion. It was divided into twelve shares; only three were left for the Civil List, three were given to the Sultan Mother, three to one favourite of the Palace, and three to another.

The lucky recipients were to make fortunes. It was never thought they were to make fortunes in the usual way, by putting in capital and obtaining a return. They knew they had got a good thing, that it had been valuable to the English, that English coals were selling at 35s. per ton, and that the concern was a good thing to sell to the English. In this they were encouraged by the half European Levantines and the French adventurers, and hence every capitalist in Europe has had offered to him for years the Heraclea coal mines. Each saw the concern was good, but he always found that he had to furnish a very large capital for working, but independently of that he was to furnish some very enormous sum for the Civil List people

and their agents. It was the kind of thing for a Levantine to dispose of other people's property without paying anything, and to levy a toll upon it. Of course, all these propositions fell to the ground, as no capitalist could stand them.

Meanwhile, as a matter of course, our readers will understand that the mines did not improve. Nothing was laid out upon them, and they gradually fell into the possession of squatters, who got stronger and stronger, while the treatment of the property got worse and worse in the flux of years. It has been all surface working and scratching, but still a great deal of coal has been raised, because there has been a market. The Government has never lost sight of Heraclea, though it has been hampered with the improvident arrangements made by the Civil List. The Civil List has, however, been luckier on another side, for it has a monopoly of the gasworks at Pera, in Constantinople. Here Heraclea coal has been used for many years, and the best quality is selected and sent to the Sultan's palaces.

The Government has always eagerly regarded the prospect of obtaining coal for its vessels on the Black Sea and in the Archipelago in case of a war, and one article has generally been that the Government should take not less than 60,000 tons a year. Such, however, have been the delusions propagated by the Levantines that this condition has been frustrated by some such stipulation as that the new company should lend 500,000l. to the Government for twenty or thirty years at 6 per cent.

Times have to a certain extent altered. There is another Sultan Mother. RIZA PASHA is dead, and has heirs, and so has SAFERTI PASHA. So we conclude the present combination, as it has some large Constantinople bankers in it, is more practicable. A company has been constituted of various English parties to work the concession, and we are informed that some of the old coal engineers have gone out and are well satisfied. What the conditions of the affair are we do not know, but we are pretty well assured of this—that before long the public here will be asked to take shares.

As we have said, the formation is extensive, and we have seen good specimens of coal, which though inferior to Newcastle, yet with the advantage of local production able to compete with it in the Constantinople market. It is, however, likely to be some time before the Heraclea coal will very much interfere for that market with Newcastle, because the new company is tolerably sure to try for a high price. The Heraclea district is feverish, and the coast is generally bad, but there are harbours that can be improved, and there is regular steam communication between Heraclea and Constantinople.

Among the advantages claimed for the mines are the cropping out of the coal to the surface, the moderate angle of dip, and proximity to the seaboard. With regard to the latter, it is certainly the case, but then under the conditions that we have stated, that in many places coal must be shipped on the open beach, which can only be a season business. This, in fact, refers to what must be one main operation of the company, carrying out tramways to the best ports for shipment, where staiths are provided. This the squatters have not been able to accomplish, and the development even of their operations has been retarded, because they have had a constant market. The coal does crop out at the surface, but with regard to the angle of dip we have heard opposite opinions, and it will make all the difference whether or not the new company can run workings readily into the beds.

With regard to markets, they have not got a sale for them. There are great markets supplied from Newcastle and other English ports, and with coal seldom under 30s. per ton. Markets they have east, west, and north, Constantinople, the Danube, Odessa, and with Russian ports in every direction. We suppose, therefore, this is another step in Turkish mining, which with the greatest resources has gone on indeed at a snail's pace. It has hardly seemed to go forward, notwithstanding all efforts, and the strong desire of the Government, but it has kept itself alive, and very little effort will give it considerable development.

### THE SEARCH FOR ENTOMBED MINERS.

Last week we briefly recorded the recovery of the three colliers who ever since March 29 had, up to Thursday morning, lain entombed in the workings at the Highbridge Colliery, near Pelsall, in South Staffordshire. The circumstances under which they met their death were discussed in the Journal on April 29. In that article it was made known that the pit had been inundated with sand and water; and Mr. CHAPPER, the owner, being unable to do more towards getting out the men than he had done, the Government Mines Inspector of the district had convened a meeting of mining engineers, and afterwards of coal and ironmasters, to see if by the first the workings could not be cleared without grave risk; and by the second if the requisite money to pay for the work of clearing could not be obtained from the trade. The engineers had no doubt that the work of clearing could be accomplished; and such was the encouragement that the Inspector received from the trade that he concluded that the requisite funds would be forthcoming without an appeal to the general public. He held that to get at the bodies would likewise prove in no small degree to get at the hearts of the working colliers. The same views influenced engineers and colliery owners alike, and whilst the former directed the operations with all the skill and care that they could command, the latter—those of them who have yet contributed—have done so with marked liberality, and otherwise in a manner to demonstrate their hearty sympathy with what it was desired to do. This combined action has been attended with the result already intimated. The corpses have been dug out, and on Sunday last they received Christian burial. The circumstances attending that interment are, in connection with the views held by Mr. BAKER, the Government Inspector, and by which he was chiefly influenced in desiring the recovery of the bodies, worthy to be placed upon record thus prominently. It is clear that the working miner is susceptible of the feelings that are too often attributed to people of better education and of very different position in life.

It was only a brief while since that incidental particulars accompanying the interment of the youngest child of the heir to the throne of Great Britain were published throughout the country, and it was noted that children carried flowers in the little funeral procession, in which the royal father was himself the chief mourner, and with these poetical mementoes filled up the tiny grave. Who shall deny to the smitten hearts of the relatives of the three miners at Pelsall a similarly pleasing manner of testifying their love; and who shall say that when they so testified their affection they were not influenced by sentiments as laudable and as worthy of cherishing as those that custom regards as inseparable from the prince and the peer? The coffins that contained the deceased were plentifully scattered inside with flowers by loving hands. In the procession to God's acre, around the church at Pelsall last Sunday, when the remains of the colliers were taken to their burial, it is computed that 2000 people took part. Heading the whole, it is announced that there was a young girl carrying a bible, followed by young women suitably draped as mourners, and carrying flowers to bestow the graves. If anything should be wanting to prove to the people who have contributed to the possibility of the burial of these men in the place consecrated to that use, that they have not spent either their energies or their money in vain, surely this interment furnishes that testimony.

The bodies were not reached without persistent effort—effort continued almost without intermission from the moment that the accident became known. The facts elicited by the committee show, as we had ventured to anticipate in our earlier article, that when the deceased became alarmed, and had reason to conclude that their lives were endangered, they ran from their place of work in the crop right into the main road on their way to the shaft, when they were met by the on-rushing sand and water. The poor fellows must then have beaten a retreat, and made their way through some brickwork, which they broke down into certain old cross workings. From this point several road-ways radiate. The evidences of their having got there were conclusive, and at 11 o'clock on Wednesday night all three were found firmly wedged in a small working in the rib side not more than about 18 inches square. We can hardly think that all three had striven together to get through this opening as the only apparent means of escape, although some of the searchers believe that the appearances would justify such a conclusion. It would be equally in accordance with the indications that the men were overtaken by the sand and water, and, after enduring suffocation thereby elsewhere,

had been carried along to the point where they were found jammed in a space hardly sufficient to admit of one person getting through it. So compactly were they thrust in here that the sand had to be chipped away bit by bit with chisels before the bodies could be released, more than seven hours afterwards. The spot was 284 yards from the shaft bottom. They had been employed at a point 327 yards from the shaft at the top of a side road 130 yards long, that branched off from the main road, which is 197 yards in length. It was to a point about 90 yards down this roadway that the men came before they broke through into the old workings. From the first their case was hopeless, and the other people escaped only through being within easy access of the shaft.

At the inquest Mr. J. J. GETTINGS, manager to Messrs. CRAPPER and Co., said that there had always been a great deal of water in the gate-road where the sand and water broke through, but that there never was the slightest indication of running sand. He was in the pit four days before the accident, and had the roof sounded close to where it afterwards gave way, and found that it was very firm indeed. He was in the pit at the time of the irruption, and had a narrow escape. Although Mr. GETTINGS believed that all was right at the period of which he spoke, yet, according to the testimony of another witness, a collier who had worked in the pit six months, a miner named WILLIAM POWELL, who was working near where the sand came through, became alarmed ten minutes before the accident, and, coming out of the place, expressed his fears that all was not safe, with his determination to go and smoke his pipe, "and see how it settled down." Another pikeman deposed that before the accident he heard FRANKLIN, the doggy, sounding the roof at the point named, and, noticing that it did not sound as it ought, said, "Some one will be killed there before long." This the doggy denied, and whilst one witness spoke of running sand having been found, others testified to the correctness of the manager's statement. The Coroner said that whilst it seemed evident that there was some laxity on the part of the doggy in regularly examining the workings before the men began, still that the accident was one that could not have been foreseen. With this the jury so fully concurred that, without desiring to adjourn the inquest for the presence of the Government Inspector, whom the Coroner said he had been unable to acquaint of the enquiry, they recorded a verdict of "Accidental Death," whilst they cautioned FRANKLIN as to his conduct in future. It is gratifying that such a decision was come to so easily, and it increases the melancholy satisfaction we have in setting forth the success of the explorers. It should likewise afford facility to the Government Inspector in his work of obtaining the balance of money still needed to defray the whole cost of the work.

### POLLUTION OF RIVERS.

The absolute necessity for securing an abundant supply of pure water for domestic purposes led to considerable agitation some few years since in the manufacturing districts against the discharge of the refuse from industrial establishments into the neighbouring streams, and the result has been that those who did most to contaminate the rivers have learned to realise large profits from the very refuse which before was worthless to themselves, and dangerously objectionable to those around them. But although decisive action has been taken against the contamination of rivers with the refuse from industrial works, their contamination with sewage has still been left unchecked, and, except in a few isolated cases, sewage still remains unutilised, and is still permitted to make the rivers little better than sewers themselves. Yet, enough has already been done to prove that in most instances the difficulties attending the profitable application of sewage are not great, and that such application is alike advantageous to those who undertake it and beneficial to the health of the entire district from which the sewage is obtained.

From the communication of Mr. ALEXANDER BASSETT, C.E., of Cardiff, published in the Supplement to this day's Journal, it will be seen that he is turning his attention to the matter in that district, though it is to be regretted that he does not seem to obtain such hearty co-operation from the authorities as might reasonably have been expected, the Cardiff Town Council not having favourably received his proposition to take a lease of the sewage waters of the district for twenty-one years, at a rental, that certainly appears to be very liberal. He has now commenced some experiments on a small scale to demonstrate the correctness of his system, and it may be hoped that ere long the importance of the proposition to utilise the sewage, as well as the other refuse matters at present discharged into the rivers, or altogether neglected, will be recognised throughout the district. Refuse matters other than sewage have been mentioned, because it is complained that at Bridgend unsuccessful efforts have been made to induce the proprietors of an extensively worked colliery which lies to the north of the town to discontinue the practice of washing coal in one of the tributaries of the Ogmore. Now, it is perhaps unreasonable that a little additional coal dust should be objected to when "the river forms the main artery into which the sewage of the neighbourhood is drained," but admitting this, it may still be asked whether it is to the interest of the colliery proprietors that they should contaminate the river with their coal? Is there not more value in this refuse than would repay for its utilisation? Such questions as these never received the attention of the alkali makers until they were compelled to keep their refuse within their own premises, though they have now been answered in such a manner as to add to the general profits of the concerns affected. If Mr. BASSETT be equally successful in his efforts to prevent the contamination of the streams and rivers of Glamorganshire, he will have earned the thanks of the entire district, and his example will doubtless be followed elsewhere.

### MINING LAW—THE COST-BOOK PRINCIPLE.

The cases of the Prosper United Mining Company *re* J. and J. B. PALMER, lately heard before the Lords Justices, have raised an interesting point of cost-book law. Both cases are nearly identical on the facts. It appeared that formerly those gentlemen—Messrs. PALMER—held shares in the above mine, but in July, 1868, they relinquished their shares therein, and the pursuer thereupon caused a valuation to be made of the whole of the mine plant and materials, which was assessed at 9000l. Soon afterwards they paid their share of the liabilities, and claimed 450l. from the mine, that sum being the value of their share in the money value of the above-mentioned plant and materials. These claims were allowed by the official liquidator of the company, who was the Registrar of the Stannaries Court, but such allowance was reversed on appeal by the Vice-Warden. The Messrs. PALMER feeling themselves aggrieved by the Vice-Warden's decision, appealed to the Lords Justices, who declined to decide the question in controversy between the parties without having judicially before them the Stannary law as to relinquishment, and thereupon directed an issue to the Vice-Warden upon that point.

We need scarcely say that the subject of relinquishment is the strength and backbone of the Cost-Book System; in fact, it is one of the most interesting and important in the whole of its customs. It is this (see "Tapping's Cost-Book Treatise," p. 28), that any adventurer may, by giving notice in writing to the secretary or pursuer that he desires to relinquish his shares, and on paying his proportion of the debt and costs incurred for works, or continuation of works determined on, at any time relinquish his shares or interest in the adventure, whereupon he is not only freed from all future risk or liability, but is entitled to valuation and payment of his fair proportion of the value of the mine plant, materials, &c., at the time of his relinquishment. No doubt can possibly exist as to the existence of such a custom, for it has not only existed from time immemorial, and been recognised in several decided cases, but has also been sanctioned and adopted by Act of Parliament. This being so, it is difficult to understand why the Lords Justices remitted the case to the Vice-Warden, and why they did not act upon the judicial and statutory recognitions which relinquishment has received on former occasions. At the same time we admit that the Court has a right in its discretion to insist upon having the custom proved before it, on every occasion wherein it arises.

It also appears to us a solecism of an extremely inconvenient kind to refer an issue to the same judge who has rejected the Messrs. PALMER'S claims, and who, therefore, has to some extent prejudged the

question. Such an issue should, in our humble judgment, have been referred to a person conversant alike with mining matters and Statutory law, and if such had been the case we should have felt that "relinquishment" and its advantages would have been in safe hands. Hitherto adventurers have entered companies founded on the Cost-Book System, and incurred the risks of unlimited liability, leaning for protection on "relinquishment," and it would be serious indeed to Cornwall and to adventurers if any issue should be determined adverse to the existence of so much of the Cost-Book System as provides for the retiring of any adventurer at any time on the paying up all calls, &c., and recovering the above *pro rata* value. Let us hope, therefore, that the custom will pass through its present ordeal scatheless; if not, the Cost-Book System may be considered to have received its death-blow.

#### THE COAL STRIKE IN WALES.

The first blow in the great battle of Labour against Capital in the South Wales district has been struck. On Thursday, June 1, some 8000 or 10,000 colliers in the Aberdare and Rhondda valleys left their work, and determined that they would not resume it until they had obtained a 5 per cent. advance upon wages which had been current for many months past. Every day the breach widens, conciliation becomes more difficult, employers and employed daily become more embittered, and less disposed to seek an amicable understanding; each party nerves himself up and prepares for a contest; each side looks about for fresh fuel to add to the flames, and a most disastrous issue to both parties is becoming more and more apparent every day this unfortunate dispute remains open. The question very naturally arises at the very onset as to who is mainly responsible for the state of things as they now exist, and which if continued will involve the breaking up of many comfortable homes, the semistarvation of thousands of families, misery and ruin to hundreds of now prosperous, well-to-do tradesmen, and the driving away to other shores much of the legitimate trade and commerce of the district. In reply to the question, who is responsible for this state of things? we cannot but think that Mr. HALLIDAY, of Lancashire, the President of the Amalgamated Society of Miners, has very much to answer for. This person, who receives some 3000, or 4000, per annum out of the funds of the Union, has lately been expatriating the poor uneducated miners of the South Wales district upon the advantages of combination, and the happy results which have followed strikes in his part of the country. His remarks have had the effect he evidently ardently desired, for at least 10,000 colliers have "struck" work, under the promise that each man shall receive 10s. per week so long as the strike shall last—a promise which probably will shortly be broken, or it will put the funds of the Union to a greater test than even Mr. HALLIDAY himself anticipated. But our object is not so much to point out the cause or origin of the present disturbance of the relationship between master and man as to endeavour once more to heal the breach. The most vital consequences depend upon this question being promptly and satisfactorily settled.

In our last issue we suggested the desirability of keeping the one great question in dispute prominently in view—the 5 per cent. increase of wages demanded by the men. Other points are ingeniously sought to be introduced, but if the increase of wages could be amicably settled, the other points would be of mere secondary importance. We have already stated that in our opinion the case is one most essentially for reference and arbitration. Disputes of far greater difficulty—if not involving more serious consequences—have been amicably settled by a few practical disinterested gentlemen consulting together for a few days, or even hours. To this point matters must eventually come. We cannot believe that the colliery proprietors would like to see the men reduced to such straits that harsh and unjust terms could be enforced. All past experience forbids such a view of the case, the employers have always been anxious to meet the demands of the men when those demands have been reasonable and justified by the state of trade. Let, then, the demands of the men be now submitted to arbitration. If Mr. MUNDELLA, M.P., or Mr. ELLIOT, M.P., both eminently practical men, could be induced to visit the South Wales district they would soon gain the confidence of both masters and men; matters could be discussed calmly and dispassionately, and we believe an arrangement in every way satisfactory would soon be arrived at. Already a very large number of working colliers denounce the strike, and would gladly continue working upon old terms. Let steps be at once taken, then, to submit the whole question to arbitration—to the decision of such gentlemen as we have ventured to name, and we hesitate not to say that the great body of working colliers of the South Wales district would speedily prove that they have greater confidence in Mr. MUNDELLA or Mr. ELLIOT than in Mr. HALLIDAY; and the evil consequences of a general strike would be nipped in the bud.

**THE COLLIERY STRIKE IN SOUTH WALES.**—The executive of the Amalgamated Association of Miners have held two meetings at the Rainbow Hotel, Manchester, when the following resolution was unanimously passed relative to the dispute as to the wages question in South Wales:—

"This executive having fully considered the dispute relative to wages in South Wales, expresses its approval of settling the same by arbitration, as recommended by the editor of the *Western Mail*, and that a deputation be appointed to go to South Wales, and meet the miners, in order to recommend them to have the dispute settled by such means."

The executive have acted wisely in thus early endeavouring to bring the strike to a close whilst in its infancy. The executive must well know that they have not the means to keep the men and their families from starving, or nearly so, and compelling numbers of young persons to become beggars throughout the country. In 1861 some interesting statistics were prepared for the Statistical Society of Manchester, showing what the effect would be in the case of a strike for an advance of 5 per cent., and the length of time it would take the men to make up their loss, leaving out of question the amount of want and misery endured. It was shown that the loss of one month required 1½ years to make it up; two months, 3½ years; three months, 4½ years; four months, 5½ years; five months, 6½ years; six months, 7½ years; seven months, 8½ years; eight months, 9½ years; nine months, 10½ years; ten months, 11½ years; eleven months, 12½ years; and twelve and a half months, 20 years. But as more strikes are unsuccessful than otherwise, losses are sustained that are never made up.

**COAL IN THE UNITED STATES.**—The annual report of the directors of the Lehigh Coal and Navigation Company states that the suspension at the company's Lehigh Mines, in February last year, was followed by a suspension at the Newport mines, the miners there acting in concert with those at Summit Hill. Work was resumed in both places on Aug. 10, the demands of the company having been acceded to. The coal tonnage on the Lehigh and Susquehanna Railroad and the Lehigh Canal was as follows last year:—From the Wyoming region, 1,247,809 tons; from the Upper Lehigh region, 157,532 tons; from the Hazleton region, 319,324 tons; from the Beaver Meadow region, 146,331 tons; from the Mahony region, 3099 tons; and from the Lehigh Coal and Navigation Company's Lehigh mines, 269,036 tons; making a total of 2,143,131 tons. In 1869 the corresponding movement attained an aggregate of 1,597,651 tons. There was a very large increase last year in the deliveries from the Wyoming, Upper Lehigh, and Hazleton regions, but the other deliveries presented a falling off.

**THE NEW AMERICAN RAILROAD ENTERPRISE.**—The construction of the Northern Pacific Railroad, the new trans-continental route, progresses rapidly. All our information leads us to suppose that the valuable lands along its route will attract a great tide of emigration, for which the company offers special inducements and conveniences. The extent and value of the land grants of the road are very little understood. Congress has granted to the company 25,000 acres per mile of road in the Territories, and 12,800 per mile in the States, amounting in round numbers to a total grant of over 60,000,000 acres. Most of this land is situated in the agricultural districts, and is equal in quality to the lands of the Illinois Central Railroad, which have sold at an average price of \$12 per acre. The value of the 25,000,000 acres lying east of the Rocky Mountains may be inferred from the fact that lands of inferior quality in the north-west are now selling at \$4 to \$6 per acre, while the value of the 27,000,000 acres west of the Mountains cannot be estimated below the minimum of \$2500 per acre put on Government lands. These facts afford some idea of the vast resources which the Northern Pacific Railroad is destined to develop, and which, in turn, must become a source of valuable revenue to the company; and the certainty of this development is the more apparent from the fact that there is scarcely one instance in the history of American

railroads in which the construction of a railroad through a fertile country has failed to attract sufficient population to create a remunerative traffic.—From "Jay Cooke, McCulloch, and Co.'s Circular."

#### REPORT FROM THE NORTH OF ENGLAND.

June 8.—There was a large attendance on 'Change at Middlesbrough on Tuesday, and for Pig-Iron the market was very firm. The advance in rates which was made at the previous meeting has been maintained without any difficulty; and, judging from the enquiries put forth by consumers, and their desire to get their contracts made, with the activity in the manufacturing departments generally, and the probability of increased requirements by continental buyers, it is very likely the Cleveland pig-iron prices will be further materially advanced very shortly. At the present moment the consumption of pig metal is greater than the production of the district. During last month the make of pig-iron, according to the Cleveland Ironmasters' Association return, was 164,082 tons, an increase of 8610 tons upon April last, and of 22,253 tons over May, 1870. Besides the absorption of this, makers' stocks were reduced from 109,655 tons at the close of April to 97,869 tons on May 31, independent of a reduction of 1150 tons in warrant store stock, which is now only 7889 tons. Pig-iron shipped from Middlesbrough to foreign ports during May was nearly 35,000 tons, about one-third of which was sent to Germany. Belgium is receiving pretty largely, as is also Holland, whilst France, during May, took from Middlesbrough something over 4000 tons of pig. Shipments along the coast amount to something like 22,000 tons, 8000 tons of which was sent to Scotland, 5000 tons to Newcastle, and 6000 tons into Wales. The increase in the deliveries by water from Middlesbrough, as compared with the corresponding month in 1870, is 21,000 tons—13,500 in foreign, and 7500 coastwise. Out of the 125 furnaces in Cleveland, 118 are in blast. The new furnaces in course of erection, some of which will in a very little time be blown-in, are being vigorously pushed on. The Finished Iron Trade is in a healthy condition. New orders for rails do not arrive so regularly as could be wished, but the generality of northern manufacturers are kept pretty busy, and are, though slowly, receiving supplies of new work. The tone of the market has been improved recently by Russian and American enquiries, as also from Germany, and there is not much doubt but that the works will be kept during the remainder of the season quite as active as they are at present. Prices seem to be rather improving. For general merchant iron there is better demand. Plate-makers are well employed, principally for shipbuilding purposes. The builders of iron steamers on the Tees are very full of work, as they are also on the Tyne and Wear. On the Tyne, however, trade is being interfered with in consequence of the continued strike for the nine-hours system. On the Tees an uneasiness was caused at the forefront of the week by an application on the part of the blast-furnace men for an advance of wages. Matters have, however, been arranged.

The Drinfield Ironworks, Darlington, which were started originally on the co-operation system, and were afterwards taken by Mr. J. H. Garbutt, have lately been purchased by Mr. Thomas Vaughan, of Middlesbrough.

#### TRADE OF THE TYNE AND WEAR.

June 8.—There has been a considerable scarcity of ships of all kinds during the past week, owing to long-continued contrary winds. Strong north-east winds have prevailed, and cold weather of a character unprecedented for the time of year. Some of the collieries have been slack in consequence, but at the steam coal and coking collieries little interruption has taken place. The Iron Trade continues extremely good, the demand being excellent, and as stocks are low prices may be expected to improve.

Three important collieries in Northumberland—the Burradon, Fawdon, and Cowlodge—are for sale; they are well known and long established works of great magnitude, where a large quantity of steam and house coal has been worked, and a large quantity yet remains to be got. The Burradon Colliery is especially famed for producing the best quality of steam coal, and the Fawdon and Cowlodge Collieries have long been famed for producing a very superior house coal; and lately steam coal has also been produced here.

On Saturday a mass meeting and grand gala, got up under the auspices of the Durham Miners' Mutual Benefit Association, took place in a field near Annfield Plain. Processions of miners, headed by brass bands, marched to the rendezvous from the villages in that district, and a great number of people had assembled at the time the mass meeting commenced. The meeting was addressed by Messrs. Patterson (of Bishop Auckland) and Ramsay (of Durham), both of whom spoke of the advantages of unity, and advocated the association as a means of uniting every section of miners in the county. Mr. William Brown, of South Yorkshire, also spoke to the same purpose. Votes of thanks were passed to the speakers, and a large number of the people sat down to tea. The gala terminated with dancing and rural sports.

The employees of Messrs. John Bowes and partners, and other friends, met at the Queen's, Gateshead, on Saturday, and presented Mr. Richard Gregory with a handsome gold watch, as a mark of their respect and esteem, on his leaving Shipcote Colliery, with which he has been connected for 16 years, to join the firm of Garbutt and Co. A beautiful dress ring was at the same time presented to Mrs. Gregory, and the gifts were acknowledged by Mr. Gregory in a feeling and appropriate speech.

The strike of the engineers continues, but a number of hands who turned out have already gone in, and this is a most hopeful sign that the strike will not continue long on a large scale. A number of men went in at Hawke and Crawshaw's Works on Monday, the good practice having been resorted to of having private conferences between the masters and workmen, independent of any aid from the Government. A number of jobs have been brought from Belgium to Newcastle to supply the place of the men who have been on strike here for several weeks, and a large number are expected to arrive by steamers in the course of this week. If joiners can be got in Belgium, what is there to prevent engineers being obtained? The rate of payment there appears to be about half what they receive here. The payment of joiners in Belgium is at the rate of 2½d. per hour, while the rate here is 6d. per hour, so that the rate here is rather likely to tempt numbers of Belgian workmen over when they get a knowledge of the state of matters here.

The annual meeting of the Northumberland and Durham Miners' Permanent Relief Fund was held on Saturday, in the Mechanics' Institute, Newcastle, when a large number of delegates were present. Mr. John Howie, of Newton Colliery, occupied the chair, and in opening the meeting said they had reason to congratulate themselves upon the fact that that was the largest meeting of delegates which had been held in connection with that fund, which he took as a proof that they were extending their branches very much. The delegates then handed in their credentials, when it was found that the number of delegates present was 140. The secretary (Mr. Alex. Blyth) read the annual report of the executive committee, the following being an abstract:—The number of members at the close of the year previous was 15,484, while the returns from collieries for the year now closed showed 19,545 members, being an increase of over 4000. The increase still continues, and now numbered, in 156 branches, upwards of 30,000 members. This rapid augmentation has resulted mainly from carrying out the resolution adopted at the last meeting, in the appointment of four special agents for the year, for the purpose of laying, as far as possible, the objects and workings of the society before the great body of miners and their families resident in these counties. The work of extension was considerably accelerated, too, by the establishment of the minor accident fund, which was so often raised, that six months was too long to wait before the benefits of the fund reached a disabled member, was superseded by the opportunity thus afforded to all members of the permanent fund to make provision for benefits immediately on disablement, by paying a trifling additional sum. That the scheme has met with approval is shown by the fact that upwards of 12,000 members of the permanent fund have also entered the minor fund. The number of fatal accidents for the year amounted to 50, which, taking the number of members for the year at 16,000, gives a little over three per 1000 against three and a half per 1000 last year. The number of recipients at the end of March last year was as follows:—Widows, 182; children, 220; disabled members, including four half-members, 61; total number of recipients, 413. The income for the year was £171.4s. 0½d.; owners' percentage, 738s. 4s. 10d.; donations, 131.10s.; interest from investments, 378s. 19s. 3d.; total, 6302s. 19s. 1½d. The expenditure was single members' legacies, 269s.; married members' legacies, 160s.; half members' legacies, 96s.; widows and children's allowance, 282s. 12s.; disabled members and half members' allowances, 1229s. 14s.; managing expenses, local and general, 952s. 13s. 6d.; total expenditure, 5889s. 19s. 6½d., showing a surplus in the year's account of 712s. 3s. 7½d., which added to last year's balance of 10,932s. 14s. 9½d. gives the total balance of 11,645s. 18s. 5d. Since the commencement of the society there has been paid to widows, children, and disabled members the sum of 19,498s. 5s. 11d. The report was unanimously adopted. Speeches were then made by Mr. Henry Taylor, hon. secretary of the fund, and by Mr. Hugh Taylor, of Chipchase Castle, President of the Fund; and the officers elected for the year. The officers are:—Mr. Hugh Taylor, of Chipchase Castle, President of the Fund; the Right Hon. T. E. Headlam, M.P., Mr. John Straker, Rev. J. T. Fox, M.A., Mr. H. B. Stobart, and Mr. J. T. Ramsay, of Walbottle, were appointed Vice-Presidents. Mr. J. B. Leithead, North Bittburn, Darlington, was appointed treasurer; Mr. Henry Taylor, Morpeth, was elected hon. secretary, and Mr. Alexander Blyth corresponding secretary. The following committee were also appointed:—Messrs. W. P. Shield, Thos. Pratt, Joseph Bones, John Nixon, John Howie, George Parkinson, Christopher Haswell, Wm. Steele, and John Campbell.

**NORTH OF ENGLAND INSTITUTE OF MINING AND MECHANICAL ENGINEERS.**—At the meeting of members, on Saturday, the chair was occupied by Mr. E. F. Boyd, President of the Institute. The report of the proceedings of the Council was read by the secretary, Mr. T. W. Banning, from which it appears that the Council had, at the meeting on May 20, agreed to offer the free

use of the Wood Memorial Hall and the Library to the new College of Physical Science. The subject of a money grant from the funds of the Institute to the new college was also broached, but at the meeting, on Saturday, it was decided not to make any money grant. An elaborate paper was read by Mr. John Daglish, "On Counterbalancing Winding-Engines." This is a most important subject in connection with coal mining, more especially as coal is being got at lower depths year by year. The paper was well illustrated by a number of large diagrams, showing every description of balance, from the earliest period of coal mining down to the latest invention—that is, the conical drum. Of course little idea can be formed of the value and interest attached to the paper without the aid of diagrams, but we may remark here that all the old balances shown are chains in various forms, working in a staple or pit of less depth than the coal shaft. Various forms of the balances were exhibited, and the power and effect of these were shown by large and beautiful diagrams. Lastly, the conical drum was shown, and by this ingenious arrangement these heavy chain-balances are entirely dispensed with, the drum being in the form of a cone instead of a plain cylinder, so that the drum constantly decreases in size as the depth increases, and thus the load is equalised or balanced. When the paper is fully discussed on a future occasion, a most interesting meeting may be looked for. The paper of Mr. Waller, "On Steam-Bollers," was mentioned, but its discussion was postponed until next meeting.

It may be well to notice that while there is a strike prevailing among colliers in South Wales, in this district men are in very great demand, and any number of decent men—good workers—can have work, with coals and house free. The average earnings is 6s. a day.

#### REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

June 8.—The demand for coal in North Staffordshire is steady for the season, at satisfactory quotations. Some interruption in the mining operations of the district, and a consequent diminution of yield, is still caused by the flooded state of the mines around Burslem and Tunstall. The delay in organising a scheme for effectually grappling with this difficulty is in part attributed to the absence from the recent meeting of the representative of one of the largest of the collieries affected, but hopes of some successful action in the matter at an early date are generally entertained. Ironstone is steadily in demand and firm in price, large quantities of this material being sent into the southern part of the county. The Iron Trade is without much change either in the pig or finished branches. The pig-makers are mostly well sold for the quarter. In finished iron hoops and cotton bales are prominent features of demand, the United States orders being somewhat over the average this season. Plates, bars, and angles are in somewhat steadier demand, and since the Whitsun holidays the mills and forges have shown improved activity.

In South Staffordshire the collieries are for the most part in satisfactory operation, the demand for fuel for manufacturing and steam purposes having so far improved as to compensate in some measure for the usual falling off at this season of the household requirements. The projected scheme for developing the mines on Lord Hatherton's estate in the West Cannock district is being delayed by his lordship's demand of 4000l. a year minimum rental—a condition of the lease being granted. This sum the proprietors think too high, and negotiations are in consequence interrupted. In the event of Lord Hatherton making some concession in this part of the agreement it is believed that the scheme would be launched without delay as a joint-stock company. The trial shaft at Sandwell Park, West Bromwich, is making satisfactory progress, the difficulties recently encountered by the rising of water having been successfully overcome. The pig-iron trade shows increasing steadiness, and values are improving. A recent sales of the iron trade effected at some advance on the quotations of last quarter-day, but actual business is retarded by the unwillingness of producers to enter into fresh contracts before the end of the quarter. Several additional fur lines are being got ready for blast in various parts of the district. The demand for finished iron is without change, and quotations do not show any noticeable improvement. Small rounds and squares, boiler-plates, nail-roads, cable-bars, &c., are in steady request, and for galvanised sheets, on account of colonial trade, the enquiries are better than recently reported. The Bessemer Steel works at Wednesbury are in full operation, and a yield of 300 tons per week is steadily sustained. The creditors of Mr. P. D. Lewis, of the Anchor Ironworks, Smethwick, have accepted 5s. in full satisfaction of their claims; and Messrs. Harper and Co. Willenhall, offer a like composition. The latter estate shows liabilities, 22,922. 13s.; and assets, 4090l. 5s. 1d.; leaving the large deficiency of over 18,000l. The foundries of the district are well engaged on orders for mill and forge machinery, and other heavy castings connected with engineering work.

**A NEW HEATING FURNACE.**—Mr. Casson, of Lord Dudley's works, Round Oak, has been testing a new heating furnace, patented by Mr. Andrew Howatson, late of Messrs. Bald's Works, Mul Kirk, Ayrshire, in the 12-in. mill. The invention consists of introducing heated air instead of cold air, as formerly, in the ash-hole. The air is heated by being allowed to pass round the bottom of the stack, and under and at the back of the furnace itself. The air is by this means heated to a temperature of 600°. The back of the ash-hole and the firing holes are securely fastened up by air-tight doors, so that no cold air whatever is allowed to pass into the furnace. The consequence of this is that the iron is not wasted through raw air entering through the firing hole or ash-pit. The results so far have been satisfactory; indeed so satisfactory that a furnace is being put down in the 8-inch mill. The cost of erecting furnaces upon the new principle is said to be less than upon the old, and existing furnaces can be altered upon the new system at a cost of about 5l. each.

#### REPORT FROM DERBYSHIRE AND YORKSHIRE.

June 8.—Work commenced in earnest at the ironworks and collieries in Derbyshire on Monday morning, and business has fallen into its ordinary groove again after the holidays. The ironworks, as a rule, are well employed, some of them being very active. Amongst those in the latter state is Staveley, where for some time past the company have been in receipt of orders taxing the capabilities of the establishment to the utmost, more particularly in pipes, and other gas and water requirements. The forges also are doing well, and at some of them a considerable quantity of plates and rails have been turned out. In pig iron the production is large, and the demand good, a considerable tonnage of cold-blast being made for the heavy armour-plate works in Sheffield. For years past there has not been so much coal sent to London as during the past five or six weeks, such collieries as Clay Cross, Eckington, Codnor Park, Langley Mill, and others on the Erewash Valley line, having been particularly active. This is in a great measure due to the light going on between the Midlands and Great Northern Railway Companies with regard to the rates for coal going over their respective lines to London. The London merchants, finding that the rate is more than 3s. per ton lower than it was by the Great Northern in January last, and about 2s. 7d. less by the Midland, have been purchasing largely, knowing, as they do, that the low rates cannot last long. They have, therefore, stacked largely, many having supplies that will last for a considerable time. In steam coal there is a good business being done, so that the colliery proprietors so far have had a season of more than usual activity for the time of the year. The Unstons district matters are looking healthy, and in a short time the output there will be very largely increased. The sinking of the new pits, by Messrs. Rhodes and Son, is proceeding satisfactorily, and the workmen have arranged classes for mental improvement amongst themselves.

In Sheffield trade generally is good, especially the heavy branches. The armour-plate mills are fully going with Government contracts, but few fresh orders have, it is said, come to hand. For rails and railway material the demand continues large, and the prospects of makers are such as to ensure plenty of work for months to come. Bessemer steel, plain and in rails, tyres, axles, and billets, keep the works very busy. Makers of gun-barrels are still turning out large quantities, and so great has been the demand that Messrs. Firmin and Sons have enlarged that portion of their works devoted to this particular branch. The Armco works are greatly improved of late, and the exports are becoming extensive in Bessemer steel, plain and manufactured. Best qualities of table cutlery has an improving tendency, and makers are now well supplied with orders. Light agricultural implements are getting in better request, whilst the malleable ironworks are doing well.

In the Rotherham district the works are doing a good and steady business, the mills being worked to their full extent. At Parkgate they are busily engaged in plates, rails, sheets, and in shields also. The collieries in the neighbourhood are doing more than usually well for the time of year. The works of Messrs. Newton, Chambers, and Co. continue active in gas and water material, and stove and ornamental castings. At the collieries belonging to the firm there is a much larger tonnage of coal being raised than at any previous period, about 1600 tons of Silkestone alone being sent to London weekly, whilst the gross produce will be upwards of 24,000 tons a month. Throughout the greater part of South Yorkshire there is now a much better trade being done in coal than for many years past at the same period, whilst the tonnage going to London is much larger than ever it has been before. This, no doubt, will continue to be the case so long as the present rate last. It has, however, done good service to the colliery owners by making known to packet owners and others the value of the steam coal of the district. It has got into favour in a remarkably short time, and it is evident there will always be a demand for it, with a fair rate by railway. For fuel and firebricks there is a good business being done, whilst the trade to Goolbs is slightly improved, and several cargoes have been shipped during the week to Woolwich, Plymouth, Boston, Lynn, Wisbech, and other home ports. A new coal field is about to be opened out at Carlton, near Barnsley, on the estate of Lord Wharfedale, and the sinking of two shafts will shortly be commenced. At Roundwood, where Messrs. Cooper and Sellas are sinking to the Barnsley seam, considerable progress has been made, the men having got down about 180 yards.

Messrs. Rothery, of the Waterloo Main Colliery, Leeds, have just patented an invention of "Improvements in machinery or apparatus for cutting coal, stone, and other minerals, and in the tramways for the same, and for other colliery purposes."

**THE COALOWNERS' RAILWAY BILL.**—The South Yorkshire coal-owners are by no means satisfied with the decision of Sir H. Williams, son's committee, and appear determined to bring forward the Bill next session. In doing so they will be influentially supported by those whose interest it is to have the London markets supplied with cheap coal. The inhabitants of London will no doubt be appeased

as to whether they will allow themselves to be taxed to the extent of from 500,000 to 600,000, a year, for the benefit of two or three powerful railway companies. No doubt the point will also be mooted as to whether any three members of Parliament should have the power to levy such a tax on the inhabitants of any community. It is considered that the Corporation of the City of London, the representative body of the inhabitants, should give its support to the Bill, which would have the effect of lowering the present price of coal. In 1866 when the Great Eastern Northern Junction Bill from Peterborough to Doncaster was brought forward, the promoters undertook to carry coal from South Yorkshire to London at a farthing per ton per mile, which would have effected a saving of 2s. per ton to the London consumers at the East End. By those thoroughly conversant with the subject, it has been shown that the coalowners line would have been the means of lowering the price of coal from 2s. to 3s. per ton. Now as the present consumption is at the rate of more than 6,000,000 tons a year, a drop of 2s. per ton would be a saving to the inhabitants of London of about 600,000, a year. But looking at the yearly increase it may be fairly inferred that before 1880 the quantity required for the metropolis will be 10,000,000 tons, therefore should the monopoly be continued to the present lines of railway up to that time, then will the inhabitants of London be taxed to the extent of 1,000,000 sterling yearly, at the instance of three gentlemen who chance to be members of Parliament, and for the benefit of three or four powerful railway companies. The opposition of Mr. Chaplin was never considered dangerous, as he evidently thinks having the country kept intact for himself as a master of fox-hounds is of more importance than giving cheap coal to more than 3,000,000 of persons. The coalowners have now every confidence that, supported as they expect to be next session, they will make out such a strong case in the interest of the inhabitants of London as will make it dangerous for any committee to say that the consumers in the metropolis shall not have coal 2s. or 3s. a ton cheaper than at present.

**INCREASE IN THE COAL TRAFFIC BY RAILWAY TO LONDON.**—It is certainly a surprising, but at the same time a significant, fact that since coal was first conveyed to London by railway, in 1845, the largest quantity sent in any one month was in May last, a time when the consumption is generally much less than in any previous part of the year. This exceptional state of things is unmistakably due to the low rate charged by the Midland and the Great Northern Railway Companies for coal going over their lines to the metropolis, so that coal merchants are desirous of stocking as much as they can, knowing that the present traffic rate is not likely to last much longer. As the existing charge from the South Yorkshire district is 2½d. per ton less than in January last, it will be apparent that the merchants have been taking very large sums, so that the greater part of the 500000 lost weekly by the two companies has to be added to their ordinary profits. During last month the Midland has maintained its position, carrying by far the largest tonnage. The increase by all the lines during the year so far has been 205,427 tons, whilst not less than 77,189 tons more were carried during the past month than there was in April—a fact showing the desire of merchants to purchase very largely in summer in anticipation of the reduction of the rate. The following returns, however, showing the tonnage carried by the different lines will show where the increase has taken place, and the position of each during the past three months:—

March. April. May.

Midland .....Tons 120,677 ..... 103,444 ..... 123,356

Great Northern ..... 79,386 ..... 79,106 ..... 96,717

London and North-Western ..... 69,452 ..... 59,750 ..... 79,223

Great Eastern ..... 62,869 ..... 41,473 ..... 58,220

Great Western ..... 55,317 ..... 34,638 ..... 34,985

Other companies ..... 2,824 ..... 1,999 ..... 5,048

Total ..... 390,517 ..... 320,410 ..... 397,549

The increase by the Midland has been almost entirely from its own legitimate coal fields, and the same may be said with regard to the Great Northern, which has taken considerably less from Durham and from Derbyshire than it has hitherto done, the consequence has been that the South Yorkshire colliery owners have been benefited to a much greater extent than could have been anticipated. In Silkstone, house, and gas coal there has been a marked increase by the Great Northern, as will be seen from the returns of the quantity carried during the last three months, as follows:—

March. April. May.

Charleworth's .....Tons 148 ..... 37 ..... 117

Clarke's ..... 2,469 ..... 2,357 ..... 2,296

Cooper's ..... 2,072 ..... 1,983 ..... 2,947

Graze ..... 961 ..... 585 ..... 487

Newtown's ..... 4,724 ..... 4,907 ..... 6,507

Stratford ..... 1,782 ..... 2,352 ..... 3,455

Wharfedale ..... 3,154 ..... 3,608 ..... 4,072

Total ..... 15,310 ..... 14,229 ..... 20,681

Of the Barnsley sent over the several lines, with the exception of the Midland, there has been a very considerable increase, more especially in steam quantities, which up to the reduction of the rate has been almost unknown in the London market. A considerable tonnage is now sent to Blackwall and other place for the use of the steam vessels in the Thames, as well as for other purposes. The following figures will show the increase for the last three months:—

March. April. May.

Darfield .....Tons 1,910 ..... 1,856 ..... 2,777

Elsecar ..... 867 ..... 1,664 ..... 1,703

Denaby ..... 237 ..... 2,629 ..... 2,629

Edmund's ..... 641 ..... 1,191 ..... 1,070

Lund Hill ..... 1,352 ..... 1,719 ..... 2,951

The Oaks ..... 1,007 ..... 925 ..... 1,601

Swatke ..... 1,375 ..... 1,408 ..... 2,971

Thrybergh ..... 730 ..... 325 ..... 611

Wombwell ..... 1,089 ..... 1,692 ..... 2,461

Worsborough ..... 815 ..... 667 ..... 811

Total ..... 9,445 ..... 11,928 ..... 19,576

It will be seen that from the above collieries alone more than twice the quantity of coal was sent during May than there was in March. The Great Eastern in addition to the above took 5887 tons from Gawber Hall, but it also took 5700 tons from Clay-Cross. The large increase by the Midland has been principally from a few of the principal collieries, Clay-cross as usual taking the lead. It may, however, be said that a considerable tonnage has been sent from Derbyshire on to the Great Northern at Nottingham than before the dispute. The following tonnage was sent from Derbyshire:—

March. April. May.

Clay Cross .....Tons 34,629 ..... 29,031 ..... 6,500

Langley ..... 14,217 ..... 11,668 ..... 14,263

Pixton ..... 9,737 ..... 6,652 ..... 8,485

Rekington ..... 9,227 ..... 8,657 ..... 9,608

Shipley ..... 6,287 ..... 6,169 ..... 6,325

Codnor Park ..... 8,881 ..... 7,258 ..... 8,160

Staveley ..... 6,239 ..... 5,128 ..... 6,492

Tapton ..... 4,473 ..... 5,610 ..... 3,997

Total ..... 93,180 ..... 78,103 ..... 93,830

The increase of about 20,000 tons by the London and North-Western was partly due to the increased business done with the Derbyshire coal field, it having carried 16,095 tons from the above collieries alone. It also conveyed more from the collieries on its own line, as follows:—

March. April. May.

The Cannock Chase .....Tons 2,912 ..... 1,653 ..... 1,631

Wigan Coal Company ..... 2,981 ..... 2,501 ..... 2,301

Merrthyr ..... 2,133 ..... 1,991 ..... 1,912

Orrell ..... 2,669 ..... 2,719 ..... 3,844

Aberdare ..... 3,154 ..... 3,858 ..... 3,818

Ince Hall ..... 1,612 ..... 1,137 ..... 1,923

Total ..... 18,913 ..... 16,275 ..... 22,329

The Great Western shows little or no change during the past two months, although there has been a marked falling off in tonnage compared with March. There was sent by the Great Western from the following collieries:—

March. April. May.

Aberdare .....Tons 11,246 ..... 7,277 ..... 8,140

Bwlfa ..... 4,076 ..... 2,096 ..... 2,679

Daren ..... 4,897 ..... 3,650 ..... 3,789

Cefn (Merrthyr) ..... 2,551 ..... 1,468 ..... 1,722

Mountain Ash ..... 1,932 ..... 292 ..... 109

Navigation ..... 5,921 ..... 3,221 ..... 2,548

Middle Duffryn ..... 1,788 ..... 938 ..... 937

Total ..... 32,405 ..... 17,927 ..... 19,917

The above facts and figures will show the effect the fight as to the rates between the Midland and Great Northern Companies has had on the London Coal Trade, and also how it has affected other lines.

**CHESTERFIELD AND DERBYSHIRE INSTITUTE OF MINING, CIVIL, AND MECHANICAL ENGINEERS.**—An association under the above title has just been formed, having its head-quarters in Chesterfield, the centre of the Derbyshire mining district. The want of such an association has long been felt, seeing that Derbyshire is one of the richest counties in the kingdom so far as minerals are concerned, having not only valuable seams of coal and ironstone, but extensive mines of lead, with zinc, manganese, copper, china stone, the beautiful fluor-spar called "Blue John," marble, gypsum, &c. The coal measures are part of what is known as the Midland field, running from Nottingham to Leeds, the most extensive in area we have in the country. The objects of the institute are the promotion of scientific information by an interchange of ideas, and the furtherance of practical knowledge in connection with the important mining and other industries around. By means of papers, subjects of interest to the geologists, the mining, civil, and mechanical engineer, and the metallurgist, will be brought forward and discussed. The important question of the ventilation of mines, and the modes best adapted and suited to the varied conditions of them, will meet with that attention its importance deserves, so that practical results may be evolved and brought into operation by those having in their care the lives of miners and the management of mining property. The institute, it is understood, will be based on the model of those successfully established at Newcastle-on-Tyne, and in South Yorkshire, South Wales, Staffordshire, &c. The payments are for life members, 10l. 10s.; annual subscription for honorary and ordinary members, 1l. 1s.; and for students, 10s. 6d. That the institute will be a great success may be inferred from the very influential support it has received up to the present time, although it will not be formally inaugurated until July. Lord Edward Cavendish, whose relative, the Duke of Devonshire, is about the largest mineral owner in the country—has accepted the office of President, and the Vice-Presidents are—Messrs. O. Binn, Clay Cross; W. Fowler and J. S. Smith, Sheepbridge Coal and Iron Company; J. T. Woodhouse, Derby; A. Barnes, Ashcroft; T. Carrington, sen., Holywell House, Chesterfield; G. Ormston, Chesterfield; and P. Swanwick, Whitlington. The council consists of the leading mining engineers and iron managers, including Messrs. Campbell, of the Staveley Collieries; J. A. Birkbeck, Sheepbridge Works; R. Bromley,

Grassmoor Colliery; W. Knighton, Staveley Ironworks; W. Howe, the Clay Cross Collieries; W. Oliver, Victoria Foundry, Chesterfield; J. W. Fearn, Chesterfield; W. D. Holford, Tupton Colliery; J. Ward, Ankerhold; Wild, Whitlington, &c. Already, we are informed, a large number of gentlemen have been enrolled as members, so that the institute will start not only numerically strong, but in a good financial position.

#### REPORT FROM SCOTLAND.

June 7.—The firmness noted in our last weekly report continued on the 1st inst., when business was done in warrants at 57s. 10½d. cash and 58s. 1½d. one month. These extreme prices were not, however, maintained, a natural reaction took place, the price gradually drooping until 56s. 9d. was touched on Monday, and rallying again to 57s. cash. To-day the market was quiet during forenoon, 57s. 1d. cash and 57s. 4d. one month the prices, but on late 'Change there was a good deal of anxiety to sell, and the tone at close was decidedly flat, sellers at 76s. 9d. cash and 57s. one month. There is little change in the prices of shipping iron. It is the excessively large shipping returns that have lately induced so much speculation in buying, and the least symptom of falling off in that department immediately alters the tone of the market. The shipments for last week were 16,103 tons, which are considered very good, and they will, it is expected, continue good, and show from week to week an increase over the returns of last year, but at the same time there is no prospect of their being such as will for some time make any serious impression on existing stocks. The local trade continues good; the malleable works are very busy, as are also many of the foundries, but there is a lack of orders to occupy the foundries engaged in the heavy pipe and railway chair departments. The production continues to go on steadily at the same rate as last year.

|  | No. 1.   | No. 2.    |
|--|----------|-----------|
| G. M. brands at Glasgow (deliverable alongside) .. | 57s. 6d. | 57s. 0d.  |
| Garthrie ditto ..                                  | 64 0     | 57 6      |
| Coltness ditto ..                                  | 64 0     | 57 6      |
| Summerlee ditto ..                                 | 61 6     | 57 6      |
| Langloan ditto ..                                  | 60 0     | 57 6      |
| Carabroo ditto ..                                  | 59 0     | 57 6      |
| Calder at Port Dundas ditto ..                     | 60 0     | 57 6      |
| Glenarnock at Ardrossan ditto ..                   | 60 6     | 57 0      |
| Dalmellington ditto ..                             | 61 0     | 57 6      |
| Eglington ditto ..                                 | 67 6     | 56 0      |
| Carron at Grangemouth ditto ..                     | 67 6     | 56 0      |
| Shotts ditto ..                                    | 60 6     | 57 6      |
| Kinnell at Boness ditto ..                         | 67 0     | 54 0      |
| G. M. brands at Middlesbrough ditto ..             | 60 6     | 47 6      |
| Bar iron ..  | £7 15 0  | to £8 0 0 |
| Nail rods ..                                       | 8 0 0    |           |

For the week ending June 3, 1871 .. Tons 16,103

June 2, 1870 .. 15,740

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Steam coals are in pretty extensive request, on account of all the principal foreign markets and mail packet stations, and the colliery proprietors would find little difficulty in securing contracts if they were in a position to procure the usual supplies. A large demand is also, in all probability, about to commence on French account, which will, as far as can now be seen, be entirely lost to this district. The turn-out of such a large number of men has, in fact, quite deranged the steam coal trade, and probably not for months will it again go on satisfactorily. House coals show no change.

The arrivals at Swansea include—the Geraldine, from Antwerp, with 125 tons of iron ore, for Prevost and Letricheaux; the Capricorn, from Carrizal Bay, with 333 tons of copper regulus, for H. Bath and Son; the St. Anne, from Lamplos, with 160 tons of lead and zinc ore, for Richardson and Co.; the Giovanni, from Carlsfort, with 385 tons of zinc ore, for Richardson and Co.; the Jeanne Evratie, from Antwerp, with 138 tons of fire-clay, for H. Bath and Son; the Janet and Ann, from Santander, with 173 tons of calcining ore, for Dillwyn and Co.; the Catherine Jane, from Dieppe, with 40 tons of chalk, for T. Brett; the Artizan, from Bilbao, with 700 tons of iron ore, for T. Wood and Co.; the Fusleer, from Bilbao, with 430 tons of iron ore, and 10 tons of pig-iron, for T. Wood and Co.

**THE COLLIERIES' STRIKE.**—Almost before the seriousness of the position was realised the great strike, which has been lurking on this district for a month or two, has become a fact. The colliers have turned out to the number of over 12,000, and the produce of the collieries where that number were employed was, as nearly as possible, 50,000 tons per week. The withdrawal of such an enormous quantity from the markets will necessarily be productive of very serious and disastrous results, unless a speedy settlement of the dispute between the masters and the men is effected. The following is a list of the collieries now idle, the number of men and boys on strike, and the quantity of coal raised per annum:—

| COLLIERIES IDLE.   | Men and boys. | Tons.     |
|--|---------------|-----------|
| Powell's Duffryn ..                                      | 3,643         | 41,023    |
| Nixon, Taylor, and Cory (Navigation and Deep Duffryn) .. | 1,112         | 278,546   |
| Llwyd Shiekha Coal Company ..                            | 258           | 57,371    |
| Evans Lewis (Cwmnach) ..                                 | 493           | 29,267    |
| Bwlfa Colliery Company ..                                | 494           | 104,927   |
| Mordecai Jones (Nantmelyn) ..                            | 450           | 89,703    |
| Gadlys Iron Company ..                                   | 612           | 126,611   |
| Cwmnaman Coal Company ..                                 | 380           | 78,357    |
| D. Davis and Son (Abercromby, Blaengwawr, & Ferndale) .. | 1,538         | 239,304   |
| Glamorgan Coal Company (Llwynp) ..                       | 170           | 36,642    |
| Ocean Steam Coal Company ..                              | 1,192         | 290,299   |
| Marquis of Bute (Cwmneubron) ..                          | 320           | 67,346    |
| Darwen Coal Company ..                                   | 420           | 95,915    |
| Insole and Son (Abergorio) ..                            | 528           | 132,344   |
| Cory Brothers (Pentre) ..                                | 241           | 50,790    |
| Bodrigaig Colliery Company ..                            | 123           | 30,412    |
| Total ..   | 12,132        | 2,512,763 |

COLLIERIES WORKING.

| R. Fothergill (Abernant) ..        | 639   | 160,608 |
|------------------------------------|-------|---------|
| Samuel Thomas (Soyborwen) ..       | 435   | 99,045  |
| Heath, Evans, and Co. (Werfa) ..   | 524   | 68,812  |
| R. H. Rhys (Merthyr Dare) ..       | 216   | 38,670  |
| Thomas Jones (Tyla Coch) ..        | 165   | 30,492  |
| Eluezer Lewis (Rhonda, Merthyr) .. | 250   | 44,942  |
| M. Cope (Ynysfawr) ..              | 137   | 24,918  |
| Total ..                           | 2,366 | 457,487 |

[Some remarks on this unfortunate affair appear in another column.]

**THE SOUTH WALES AND WEST OF ENGLAND COAL AND METAL MARKETS.**—At these markets, at Swansea, on Saturday, the following were present:—Messrs. E. Daniel (Beaufort Tin-Plate Company), Thos. Elford (Elford and Williams), S. G. Homfray, T. Jones (Morewood and Co.), W. Williams (Llanmawr Tin Plate Company), A. B. Gullian, W. B. Bell, W. Habbakuk, A. Sterry, William Thomas (Lau), S. Williams (Williams and Mitchell), J. Merry, J. Molebutter, W. D. Trick, John Powell (Milbrook Iron Company), and W. R. Tremellen. Business was brisk, and some large transactions during the week were reported; 20 tons of pig-lead were sold at 17l. 15s. per ton; 100 tons of unfinished charcoal black plate at 15l.; refined tin offered at 130l.; No. 3 hematite pigs offered at 82s. 6d., but 89s. was taken for a cargo. Business was also done in Spanish and Irish ores, at an advance of 6d. per ton.

#### LITHOFRACTEUR.

DEPUTATION TO THE SECRETARY OF STATE FOR THE HOME DEPARTMENT.

Yesterday afternoon a large and influential deputation waited upon Mr. BRUCE, the Secretary of State for the Home Department, with the view of obtaining permission to import into England, and also to manufacture, the new explosive compound, lithofracteur. The deputation consisted of about thirty gentlemen, nearly twenty of whom were members

## WIRE TRAMWAY COMPANY (LIMITED).

(HODGSON'S PATENTS).

Capital, £100,000, in 10,000 shares of £10 each.

DIRECTORS.

PETER RYLANDS, Esq., M.P.—CHAIRMAN.

J. G. CHURCHWARD, Esq.

W. M. BULLIVANT, Esq.

CHARLES HODGSON, Esq.

HENRY RITCHIE, Esq.

FREDERICK WALTON, Esq.

BANKERS—Messrs. ROBERTS, LUBBOCK, AND CO.

SOLICITORS—Messrs. WILKINS, BLYTH, AND MARSHLAND.

AUDITORS—Messrs. FORD AND SMITH.

This company is formed to extend the business established by the patentee for the construction of tramways on the Wire Rope System.

Some of the advantages of Wire Tramways may be thus briefly stated:—

- 1.—Lines can be constructed and worked on hilly ground almost as cheaply as on plains.
- 2.—Their cost is in proportion to the work required of them.
- 3.—They occupy scarcely any land, only requiring a post every 200 or 300 ft.
- 4.—They are not affected, as other roads are, by floods or snow.
- 5.—They can be readily moved from place to place.
- 6.—They avoid the expense of cuttings and embankments.
- 7.—No bridges are required over rivers or ravines.
- 8.—They make most economical jetties for roadsteads, harbours, or rivers.

The extreme cheapness of lines on this system is apparent from the fact that they can be profitably constructed at prices ranging from £250 to £300 per mile for the carriage of from 20,000 to 100,000 tons per annum.

The cost of working these lines may be generally stated thus for average conditions and ten mile lengths, viz.:—

100 tons per day ..... 1½d. per ton per mile.  
200 tons per day ..... 1½d. per ton per mile.  
Larger quantities at ..... 1d. per ton per mile.

The above estimate includes every item of engine power, labour, and attendance, repairs, replacement of rope every two years, lubrication, and interest on capital.

The directors are now prepared to survey and estimate for lines, and execute contracts in all parts of the world, and have engineers resident and executing works in the United States, North Germany, Austria, Italy, Russia, Spain, and Peru.

The company have purchased Mr. Hodgson's English, Foreign, and Colonial patents, except those for France and Belgium, previously sold to M.M. Call and Company, the eminent French engineers.

The system has been adopted, and lines ordered by the English Government (War Office Department), the Anglo-Indian Government, the Spanish Government, and for some of the first mines and ironworks at home and abroad.

For further particulars, apply to—  
M. BRALE, Secretary, 21, Gresham-street, Old Jewry, E.C.

## THE COLORADO UNITED GOLD AND SILVER MINING COMPANY (LIMITED),

COLORADO, U.S.A.

Registered under the Companies Acts, 1862 and 1867, by which the liability of every shareholder is limited to the amount of his shares.

Capital, £120,000, in 12,000 shares of £10 each.

Payable, £2 on application and £8 on allotment; the remainder in instalments of £2 10s. each, at intervals of not less than two months, with option to subscribers of paying the whole amount of the shares on allotment, in which case discount on the remaining £2 per share, at 5 per cent., will be allowed, and preference will be given to such subscribers in the allotment.

Provision is made in the Articles of Association for the issue of share warrants to bearer.

DIRECTORS.

JOHN BAYLEY DARVALL, Esq., C.M.G., Director of the Bank of Australasia.  
The Hon. C. W. WENTWORTH FITZWILLIAM, M.P., Director of the Vancouver Coal Company.

JOSEPH FRY, Esq., Director of the Vancouver Coal Company.  
EDMUND HAVILLAND-BURKE, Esq., M.P.  
CHARLES REYNOLDS, Esq., Director of the Mwyndy Iron Ore Company.

BANKERS.

THE CONSOLIDATED BANK (LIMITED), 52, Threadneedle-street; and 450, West Strand, London; and 46, Pall Mall, Manchester.

SOLICITORS.

Messrs. STEVENS, WILKINSON, AND HARRIES, 4, Nicholas-lane.  
SECRETARY (pro tem.)—Mr. JAMES THOMSON.

OFFICES.

No. 1, WINCHESTER BUILDINGS, OLD BROAD STREET, E.C.

ABRIDGED PROSPECTUS.

OBJECTS OF THE COMPANY.

This company is formed for the purpose of acquiring and working a well-known mine in Colorado, U.S.A., known as the "California" Mine.

SITUATION.

The mine is in the centre of the Nevada mining district, Colorado, U.S.A., and comprises 600 ft. in length, on the mother vein of the belt of lodes passing through the district.

DESCRIPTION OF VEIN.

The vein is a true fissure vein. The crevice is about 5 ft. between the walls, or enclosing rocks carrying about 2½ ft. of gold-bearing quartz, composed of pyrites of iron, copper, and zinc-blende, with a small amount of argentiferous galena. The mother vein is one of the largest and noblest on the continent of America.

RETURNS OF THE MINE.

The returns of the mine between 1st January, 1869, and 1st October, 1870, as extracted from the account-books, and partially certified by bankers' and smelters' certificates, shows the produce to have been \$566,136; while the working expenditure was \$259,835, as shown by extracts from the books, which may be seen at the offices of the company; leaving a net profit of \$306,301, or upwards of 44 per cent. of the gross receipts. This is equivalent to £54,377 per annum, or over 28 per cent. on the total capital of this company.

PRESENT CONDITION.—ESTIMATED RESULTS.

The amount of ore already exposed or brought "into light" is estimated at £2,300 tons, worth not less than £216,000. This may be all extracted with a net profit of about 50 per cent., or £108,000, in the course of two years, during which time the main shaft can be carried to a greater depth, and new levels and drifts be run, opening ground for the profitable employment of several hundred men for an indefinite period. The ore improves in quality the deeper the vein is worked.

PURCHASE OF MINE.

Samples of the ore, brought by Mr. Teal from the mine, may be seen at the company's offices, where also further information may be obtained.

Applications for shares must be made to the bankers, accompanied by a deposit of £2 per share on the form annexed.

Prospectuses and plans can be had on application at the offices of the company, No. 1, Winchester-buildings, E.C., of the bankers, and of the solicitors.

The directors call particular attention to the following extract from the official report of Roscoe W. Raymond, United States Commissioner of Mining Statistics, entitled "Statistics of Mines and Mining in the States and Territories West of the Rocky Mountains," p. 354.—(Washington, Government printing-office, 1870):—

"Nearly parallel with the Burroughs run the Gardiner and the Mercer County veins. These are doing but little, although one or two mines are prospering. The Flack, on the westerly termination of the Mercer County; the forks on the vein running across from the Flack to the Indiana (a continuation of the Gardiner), and the California, on the west of the Gardiner lode, are the most prosperous at present of all. The California Mine is one of the handsomest and best worked in Colorado. The engine-shaft has been carried down about 475 feet, passing first through about 90 feet of surface quartz, then through 180 feet of cap rock, and then reaching ore which yields in the stamp mills 12 to 14 ozs. of gold to the cord (about 8 tons). To the east of an old shaft, not worked now, runs down 95 feet in surface quartz; and still further east another shaft is down about 300 feet, passing through 85 feet of surface quartz, 50 feet of ore yielding about 4 ozs. to the cord, and then through the richer ore. Several drifts have been run, and there is exposed a very large amount of apparently rich ore (12 ozs. to the cord). The width of the 'pay rock' is from 5 to 6 feet, and some 5 cords of ore are raised daily. About one-tenth of the ore is said to be smelting, or first-class ore, and worth \$50 to \$100 to the ton. The mine is very lucrative at present, according to all accounts."

"This must not be confounded with the State of the same name. It is Nevada Mining District, in Gilpin County, Colorado Territory.

The following is extracted from Messrs. Vivian, Sons, and Co.'s, certificate as to ore from the California Mine, referred to in the engineer's report:—

"The mineral from Colorado contains copper 5 per cent., silver 55 ozs., gold 2 ozs. This we value at £17 3s. per ton of 20 cwt. dry."

London, 8th June, 1871.

FORM OF APPLICATION FOR SHARES.

To the Directors of the Colorado United Gold and Silver Mining Company (Limited).

GENTLEMEN,—Having paid to your credit, at the Consolidated Bank (Limited), the sum of £..... being £2 per share on shares in the above company, I hereby request you to allot to me that number of shares; and I hereby agree to accept such shares, or any less number you may allot to me, according to the terms of your prospectus, and I authorise you to insert my name on the Register of the Members for the number of shares allotted to me.

Name (in full) .....  
Address .....  
Profession (if any) .....

Date .....1871. Signature .....  
(Addition to be filled up if the applicant wishes to pay up in full on allotment.)

I desire to avail myself of the privilege to pay up in full on allotment the above shares, entitling me to the discount of 5 per cent., and to a preference in the allotment as stated in the prospectus. Signature .....

BANKERS' RECEIPT.

No. .... London, .....1871.  
Received of the sum of £..... being the deposit of £2 per share upon application for shares of the Colorado United Gold and Silver Mining Company (Limited),  
For the Consolidated Bank (Limited).

## THE COLORADO UNITED GOLD AND SILVER MINING COMPANY (LIMITED).

The LIST OF APPLICATIONS FOR SHARES in this company WILL CLOSE on WEDNESDAY next, the 14th instant, for LONDON, and on THURSDAY, the 15th instant, for COUNTRY APPLICATIONS.

By Order, — JAMES THOMSON, Secretary (pro tem.)

## In the Court of the Vice-Warden of the Stannaries.

Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the REPERY TIN AND COPPER MINING COMPANY (LIMITED).—Notice is hereby given, that a PETITION for the WINDING-UP of the above-named company by the Court was, on the 6th day of June instant, presented to the Vice-Warden of the Stannaries by John Martyn, a creditor of the said company, and that the said Petition is directed to be heard before the Vice-Warden, at the Prince's Hall, Truro, in the county of Cornwall, on Monday, the 19th day of June instant, at Twelve o'clock at noon.

Any contributory or creditor of the said company may appear at the hearing and oppose the same, provided he has given at least two clear days' notice to the petitioner, his solicitors, or their agents, of his intention to do so, such notice to be forthwith forwarded to P. P. Smith, Esq., Secretary of the Vice-Warden, Truro.

Every such contributory or creditor is entitled to a copy of the petition and affidavit verifying the same from the petitioner, his solicitors, or their agents, within twenty-four hours after requiring the same, on payment of the regulated charge per folio.

Affidavits intended to be used at the hearing, in opposition to the petition, must be filed at the Registrar's Office, Truro, on or before Thursday, the 15th day of June instant, and notice thereof must at the same time be given to the petitioner, his solicitors, or their agents.

HODGE, HOCKIN, AND MARRACK, Truro, Cornwall  
(Solicitors for the Petitioners).

GREGORY, ROWCLIFFES, AND RAWLIE, 1, Bedford-row, London  
(Agents of the said Solicitors).

Dated Truro, the 8th day of June, 1871.

IMPORTANT AND VALUABLE COLLIERIES IN NORTHUMBERLAND FOR SALE.

MR. BROUGH begs to announce that he has received instructions from the Executors of the late JOSHUA BOWER, to OFFER FOR SALE, BY AUCTION, about the end of June (unless the same shall be previously disposed of by private contract), all those EXTENSIVE and VALUABLE COLLIERIES known as

COXLODGE AND FAWDON, AND BURRADON COLLIERIES, Situate within a few miles of NEWCASTLE-UPON-TYNE.

The coals are known by the names of "Bower's West Hartley" and "Kenton West Hartley," the former being of the Admiralty kind.

Details will be given in future advertisements; and for further particulars apply to Mr. GEORGE YEWALL, Solicitor, Leeds; or Mr. GEORGE ARMSTRONG, Solicitor, 3, Arcade, Newcastle-upon-Tyne.

GARTH IRONWORKS, NEAR CARDIFF.

TO BE SOLD (by order of the Trustees of the late HENRY WOOD, Esq.), LARGE and NEWLY-CONSTRUCTED WORKS, within five miles of Cardiff, being bounded by the Glamorganshire Canal on the one side, and having the junction of the Rhymer and Taff Vale Railways on the other side, from all of which there is direct communication into the works.

The MACHINERY consists of TWO 35-horse horizontal high-pressure ENGINES, ONE 10-horse ditto, all with suitable BOILERS; THREE Nasmyth's double-acting STEAM HAMMERS, from 10 to 35 cwt., with the EURNAGES and BOILERS complete; also sundry shears, lams, lasses, Drilling machines, &c.

A very commodious MANAGER'S HOUSE, THIRTY-TWO NEW COTTAGES for workmen, and four old ones.

The WORKS are newly erected, never having yet been used, and occupy about FOUR ACRES of LAND, leaving about three acres for any additions required. The Engines and Machinery are all of the very best, perfectly new, and in good order, the whole is quite ready for work without any outlay.

The offices are ready furnished.

The land is held under lease, of which about 92 years are unexpired.

For further particulars, apply to—  
JAMES WAKEFIELD, Estate Agent, Corn Exchange Chambers, Chester.

LEAD MINE FOR SALE.

THE SEAGLENAS LEAD MINE, situated about five miles from LLANIDLOES, and within three or four miles of the VAN MINE, and supposed to be the same lode: £14,000 has been expended in erecting powerful pumping and crushing machinery. The mine is now 27 fms. deep, and a large quantity of lead ore has been sold. The sett contains several side lodes not worked upon.

This property is held on a tack-note of three years from Sir Watkin Wynn, at moderate dues. It is believed that if the mine was sunk deeper good results would follow. It will be sold cheap, on account of the present owner having other engagements.

Apply to Mr. STEPHEN BARKER, Birmingham; or to Capt. CORBETT, Pontefract.

LEAD MINES IN THE COUNTIES OF DURHAM AND NORTHUMBERLAND.

TO BE LET, ON LEASE, the HUNSTANWORTH and NEWBIGGIN ROYALTIES, the former about 354 acres, and the latter 200 acres, or thereabouts.

The Hunstanworth Royalty adjoins the celebrated W. B. Lead Mines, and has for many years yielded large quantities of lead ore, and much of the ground is undeveloped.

For particulars, apply to JOSEPH DODDS, Esq., M.P., No. 4, Spring-gardens, Charing Cross, London, S.W., and Stockton-on-Tees; Mr. NATHANIEL CLARK, Beamish-park, Fence Houses; or Mr. THOMAS J. BEWICK, C.E., No. 2, Westminster-chambers, Victoria-street, London, S.W., and Haydon Bridge, Northumberland.

TO CAPITALISTS.

TO BE LET, OR SOLD, an ELIGIBLE COLLIERY of about ONE HUNDRED ACRES, in working order, producing a good STEAM COAL, and also a COAL suitable for DOMESTIC PURPOSES. Part of the purchase money may be paid by instalments.

Apply to Messrs. S. and J. BAILEY, Mining Engineers, Walsall.

SLATE QUARRY FOR SALE, situate in the centre of the renowned SLATE DISTRICT of FESTINIOG, producing an excellent slate of first-rate colour, cleavage, and character. About £2000 to £10,000 has already been expended in opening out and proving apparently inexhaustible beds of slate, and in the valuable plant now on the ground.

The Quarry is now placed on the Bankruptcy Act, owing to the death of the late proprietor, and will be sold at a very moderate figure.

Apply to BELL WILLIAMS and SON, Land Agents, No. 40, North John-street, Liverpool.

ASTERLEY, SHROPSHIRE.

TO COLLIERY PROPRIETORS, AND OTHERS.

TO BE LET, all that VALUABLE and PRODUCTIVE COLLIERY, known as

ASTERLEY COLLIERY, Situate at Asterley, one mile and a half from Minsterley Terminus and Pontefract Station, with good roads to both; together with brick-built SHAFTS and TRAM RAILS, cap and ENGINE HOUSE, blacksmith's shop and appliances, MACHINERY and PLANT in excellent order.

The coal is adapted to varieties of domestic and manufacturing purposes, and the demand is daily increasing in the district; and inasmuch as the adjacent Lead Mining Properties are vigorously worked, a progressive consumption is confidently to be expected, and parties engaged in those mining operations would find this a profitable investment, to the advantage of both concerns.

Further particulars and information to be obtained on application to Mr. EDWARD DAVIES, Agent, Perkins Beach Mine, Pontefract, near Shrewsbury; or Messrs. CORSE and NEVETT, Solicitors, Shrewsbury.

ON SALE, ONE 24 in. HORIZONTAL ENGINE; ONE 22 in. HORIZONTAL ENGINE.

Apply, HENRY PARKINSON, 44, Folds-road, Bolton.

ON SALE, ONE PAIR OF COUPLED WINDING ENGINES, cylinders 12 in., with slot link motion. These engines are first-class, and will be sold very cheap.

Apply, HENRY PARKINSON, 44, Folds-road, Bolton.

ON SALE, ONE TANK LOCOMOTIVE ENGINE, cylinders 14½ in., with copper fire-box and brass tubes. Made by Sharp, Stewart, and Co., of Manchester. ONE TANK LOCOMOTIVE ENGINE, 10 in. cylinders, four wheels coupled. The above engine can be seen running.

Apply, HENRY PARKINSON, 44, Folds-road, Bolton.

ON SALE, ONE 12 in. TANK LOCOMOTIVE ENGINE, four wheels coupled; copper fire-box and brass tubes.

Apply, HENRY PARKINSON, 44, Folds-road, Bolton.

ON SALE, ONE 53 in. direct-acting PUMPING ENGINE, stroke 9 ft. ONE 36 in. direct-acting PUMPING ENGINE, 6 ft. stroke.

Apply, HENRY PARKINSON, 44, Folds-road, Bolton.

ON SALE, ONE BOGIE LOCOMOTIVE TANK ENGINE, suitable for sharp curves; cylinder, 14½ in.; stroke, 22 in. Copper fire-box and brass tubes. Made by Stephenson and Co., of Newcastle. Will be sold cheap.

Apply, HENRY PARKINSON, 44, Folds-road, Bolton.

ON SALE, TWO CORNISH BOILERS, 30 ft. by 7 ft. diameter, two fires through each; will work at 60 lbs. on the square inch. TWO CORNISH BOILERS, one fire through each, 20 ft. by 8 ft.

Apply, HENRY PARKINSON, 44, Folds-road, Bolton.

ON SALE, 18-horse power PORTABLE ENGINE, with reversing gear, suitable for winding. ONE 12-horse PORTABLE ENGINE. ONE 8-horse PORTABLE ENGINE. TWO CLAY-GRINDING MILLS, revolving pans, 9 ft. diameter; solid cast-iron rollers, iron frames, complete. These are very massive mills.

Apply, HENRY PARKINSON, 44, Folds-road, Bolton.

ON SALE, ONE PAIR OF HORIZONTAL WINDING ENGINES, cylinders each 24 in. diameter, 4 ft. stroke, fitted with slot link motion and Cornish valves; also, WINDING DRUM, 11 ft. diameter, 6 ft. wide, for round wire rope. Indicator nearly new, and will be sold very cheap.

Also, ONE 24 in. HORIZONTAL WINDING ENGINE, stroke 4 ft., fitted with slot link motion, Cornish valves, and winding drums. Will be sold cheap.

Apply to HENRY PARKINSON, 44, Folds-road, Bolton.

## EARLY SALE OF MINE MACHINERY AND MATERIALS, BY AUCTION.

THE VALUABLE PLANT OF WHEEL UNION, comprising an excellent 50 in. cylinder PUMPING ENGINE, ONE 22 in. DRAWING ENGINE, TWO BOILERS, and all the necessaries for vigorous development of a mine.

For particulars, see next week's Mining Journal, or apply to Mr. FRANCIS MICHELL, Engineer, Redruth.

COAL ROYALTY TO LET, IN THE COUNTY OF DURHAM.

THE WINDLESTONE COAL ROYALTY, containing about ONE THOUSAND FOUR HUNDRED ACRES, adjoining the South Durham, Eldon, and Black Boy Collieries, which produce HOUSEHOLD, STEAM, and COOKING COALS. The Royalty adjoins the Clarence Railway. For particulars, apply to R. HECKELS, Mining Engineer, Sunderland.

TO BE LET, ON LEASE, for a term of years, SEVERAL ACRES of LAND, suitable for MANUFACTURING PURPOSES, advantageously situated on the south bank of the River Tyne, about two miles below Newcastle-upon-Tyne, and within a quarter of a mile from the North-Eastern Railway. There is a good quay frontage, with deep water.

Apply to Mr. T. S. BRAMWELL, King-street, Quay-side, Newcastle-upon-Tyne.

TRAMWAY LOCOMOTIVE, Chaplin's patent, with VERTICAL ENGINES and BOILERS; four wheels, coupled; adapted for any gauge up to 3 ft. Only three years old. Cost, £250; price, £150.

FREDERICK MILLS, Consulting Engineer, 17, St. Ann's-square, Manchester.

PAIR OF HORIZONTAL WINDING ENGINES FOR SALE, 25 in. cylinder by 4 ft. stroke; connecting rods, 11 ft. centres; piston rods, 4 ft. diameter; centres of cylinders, 20 ft. 4 in.; diameter of shaft, 12½ in.; fitted with link motion for variable expansion, and with two drums, 12 ft. 6 in. diameter by 3 ft. 10 in. wide. WILL BE SOLD CHEAP.

FREDERICK MILLS, Consulting Engineer, 17, St. Ann's-square, Manchester.

VALUABLE MINING PLANT FOR SALE, AS GOOD AS NEW.

ONE LARGE WATER-WHEEL, 55 feet in diameter, and about 3 feet breast, with crank and spur wheel; also 130 fathoms of connecting WOOD RODS, STRAPPING PLATES, and PULLEYS, complete; ONE T-BOB and ONE V-BOB; also 32 fathoms of 9 inch PUMPS, with suitable RODS, BUCKETS, &c., complete.

The whole of the above machinery is strong, and of first-class description. Apply to R. ROWE, Laxey Glen, Isle of Man.—March 28, 1871.

SECONDHAND MINING MACHINERY FOR SALE IN FIRST-RATE CONDITION.

PUMPING ENGINES, of various sizes,—viz., 80 in., 70 in., 60 in., 50 in., 40 in., 30 in.

WINDING ENGINES, STAMPING ENGINES, STEAM CAPSTANS, and CRUSHERS of various sizes.

A NUMBER OF BOILERS.

PITWORK of all descriptions, and all kinds of MATERIALS required for MINING PURPOSES.

TO BE SOLD, AT MODERATE PRICES.

The 80 in. is nearly new, and, with several of the other engines, can be guaranteed of superior make and modern design.

For further particulars, apply to—  
MESSRS. HARVEY AND CO., ENGINEERS AND GENERAL MERCHANTS, HAYLE, CORNWALL,

AND HAYLE FOUNDRY WHARF, NINE ELMS, LONDON. CITY OFFICES (GRESHAM HOUSE), 23½, OLD BROAD STREET, MANUFACTURERS OF

PUMPING and other LAND ENGINES and MARINE STEAM ENGINES of the largest kind in use, SUGAR MACHINERY, MILLWORK, MINING MACHINERY, and MACHINERY IN GENERAL.

SHIPBUILDERS IN WOOD AND IRON.

THE PATENT PNEUMATIC STAMPS

May be SEEN AT WORK at HAYLE FOUNDRY WHARF, NINE ELMS by previous application at either of the above addresses.

FOR SALE, a high-class 25-horse power PORTABLE STEAM ENGINE; also, a 16-horse power, with or without reversing gear.

FOR SALE, cheap, several first-class second-hand PORTABLE STEAM ENGINES, 3 to 14 horse power, in excellent order.

PIT WINDING GEAR made at a short notice suitable for portable engines FOR SALE, a first-class MORTAR MILL.

Apply to BARROWS AND STEWART, ENGINEERS, BANBURY.

FOR SALE.—THE UNDERMENTIONED ENGINES:—ONE 50 in. cylinder PUMPING ENGINE, with ONE BOILER.

ONE 24 in. cylinder ROTARY STEAM ENGINE, with or without BOILER, wrought iron fly-wheel shaft, and 10 ton fly-wheel.

ONE 12 in. cylinder ROTARY STEAM ENGINE, with ONE 6 ton BOILER. A 30 in. double-acting ROTARY STEAM ENGINE, and 12 ton BOILER.

THREE Cornish BOILERS, from 10 to 12 tons each, in excellent condition. Also, several Cornish CRUSHERS, of various sizes.

A 60 feet WATER WHEEL, with hammered iron round shaft, cast-iron sockets, rings, &c.

For further information, apply to—  
W. MATTHEWS, ENGINEER, TAVISTOCK.

Tavistock, Feb. 3, 1871.

FOR SALE, BY PRIVATE CONTRACT, at PAR CONSOLS, Par Station, CORNWALL, and close to Par Shipping Harbour, ONE 80,

# TANGYE BROTHERS AND HOLMAN,

## 10, LAURENCE POUNTNEY LANE, LONDON,

### CORNWALL WORKS (TANGYE BROTHERS), BIRMINGHAM,

SOLE MAKERS OF

## THE "SPECIAL" STEAM PUMPS.

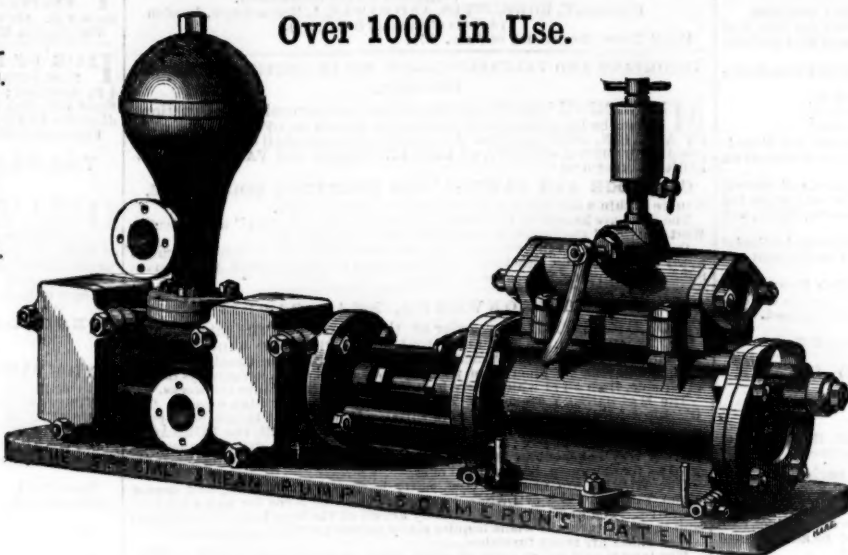
Over 1000 in Use.

## IN USE AT THE FOLLOWING QUARRIES:—

|   |          |
|---|----------|
| Carnarvon and Bangor Slate Co. ...                      | 5 Pumps. |
| Kellow, J. E., North Wales Slate Co. ...                | 1 "      |
| New Zealand Quartz Crushing and Gold Mining Company ... | 1 "      |
| Scott, R. W., Dungannon, Ireland ...                    | 1 "      |
| Foster, J. S., Hebburn Quarries ...                     | 1 "      |

## IN USE AT THE FOLLOWING CHEMICAL WORKS:—

|   |          |
|---|----------|
| Alum and Ammonia Co., Bow Common ...                | 2 Pumps. |
| Barnes, W. C., Hackney Wick ...                     | 2 "      |
| Burt, Boulton, and Hayward, Tar Works, Millwall ... | 1 "      |
| Cory and Co., Manor-street, Old Kent-road ...       | 2 "      |
| Whiffen, Thomas, Battersea ...                      | 1 "      |
| Jones, W., and Co., Middlesborough ...              | 4 "      |
| Jarrow Chemical Co., South Shields ...              | 1 "      |
| Richardson, J. G. and N. H., Jarrow-on-Tyne ...     | 1 "      |
| Read, Holliday, & Sons, Huddersfield ...            | 1 "      |
| Sheldon, Nixon, and Co., West Jarrow ...            | 2 "      |
| Tennant, O., and Co., near Newcastle ...            | 7 "      |
| Webb, H., & Co. (Manure), Worcester ...             | 1 "      |
| Union Chemical Company, Stratford ...               | 1 "      |



## NOTE,

Requires NO Shafting, Gearing, Riggers, or Belts.

All Double-Acting:

Works at any Speed, and any Pressure of Steam.

Will Force to any Height.

Delivers a constant stream.

Can be placed any distance away from a Boiler.

Occupies little space.

Simple, Durable, Economical.

## IN USE AT THE FOLLOWING COLLIERIES:—

|  |          |  |          |   |          |
|--|----------|--|----------|---|----------|
| Adelaide Colliery, Bishop Auckland ...       | 3 Pumps. | North Bitchburn Colliery, Darlington ... | 2 Pumps. | Stott, James, and Co., Burslem ...              | 1 Pumps. |
| Acomb Colliery, Hexham ...                   | 1 "      | Newton Cap Colliery, Darlington ...      | 1 "      | Seaton Delaval Coal Company, near Newcastle ... | 1 "      |
| Blackfell Colliery, Gateshead ...            | 1 "      | Normanby Mines ...                       | 1 "      | Thornley Colliery, Ferryhill ...                | 1 "      |
| Black Boy Colliery, Gateshead ...            | 1 "      | Oakenshaw Colliery ...                   | 1 "      | Thompson, John, Gateshead ...                   | 2 "      |
| Castle Eden Colliery ...                     | 2 "      | Pease's West Colliery ...                | 2 "      | Trimdon Grange Colliery ...                     | 1 "      |
| Crofton, J. Ct., near Ferryhill ...          | 1 "      | Pease, J. and J. W., near Crook ...      | 5 "      | Tudhoe Colliery ...                             | 2 "      |
| Carr, W. C., Newcastle ...                   | 4 "      | Pease, J. and J., Brandon Colliery ...   | 1 "      | Vobster and Mells Colliery ...                  | 4 "      |
| Etherley Colliery ...                        | 1 "      | Pegswood Colliery, near Morpeth ...      | 2 "      | Widdrington Colliery, Morpeth ...               | 2 "      |
| Gidlow, T., Wigan ...                        | 3 "      | Pelton Fell Colliery ...                 | 1 "      | Whitworth and Spennymoor Colliery ...           | 3 "      |
| Haswell, Shotton, and Easington Coal Co. ... | 2 "      | Railey Fell Colliery, Darlington ...     | 1 "      | Westerton Colliery, Bishop Auckland ...         | 1 "      |
| Lochelly Iron and Coal Company ...           | 1 "      | Right Hon. Earl Durham, Fence Houses ... | 1 "      | Wardley Colliery, Gateshead ...                 | 1 "      |
| Leather, J. T., near Leeds ...               | 2 "      | Skelton Mines ...                        | 1 "      | Westminster Brymbo Coal Company ...             | 2 "      |
| Lumley Colliery, Fence Houses ...            | 1 "      | South Benwell Colliery ...               | 4 "      | Weardale Coal and Iron Company ...              | 5 "      |
| Monkwearmouth Colliery, Sunderland ...       | 1 "      | St. Helens (Tindale) Colliery ...        | 1 "      |   |          |

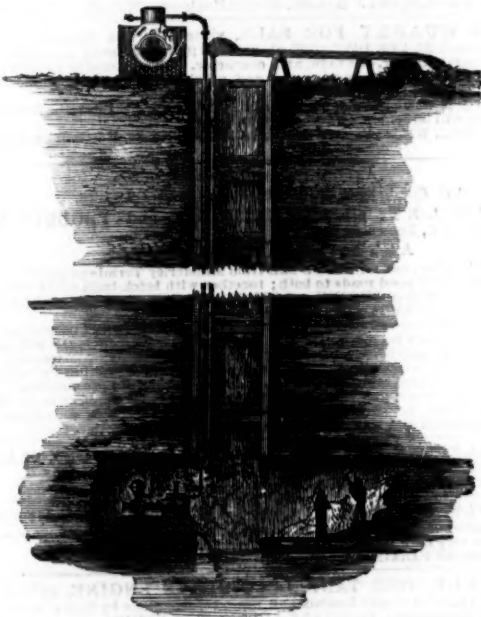
## IRONWORKS AND ROLLING MILLS:—

|  |           |  |          |   |          |
|--|-----------|--|----------|---|----------|
| Bede Metal Company, Jarrow ...             | 11 Pumps. | Gilkes, Wilson, Pease, and Co., Middlesboro' ... | 2 Pumps. | Whitwell and Co., Stockton ...            | 3 Pumps. |
| Bagnall, C. and T., Grosmont Ironworks ... | 2 "       | Lloyd and Co., Middlesborough ...                | 1 "      | Whessoe Ironworks, Darlington ...         | 1 "      |
| Consett Ironworks ...                      | 2 "       | Solway Hematite Iron Company, Maryport ...       | 1 "      | West Cumberland Hematite Iron Company ... | 1 "      |
| Castleford Foundry Company, Normanton ...  | 1 "       | Vaughan, Thomas, Middlesborough ...              | 2 "      | Westbury Iron Company ...                 | 1 "      |
| Ellen Rolling Mills, Maryport ...          | 1 "       | The Shotts Iron Company, Edinburgh ...           | 1 "      |   |          |

## THE "SPECIAL" STEAM PUMP AS APPLIED FOR DRAINING MINES.

The arrangement in the accompanying illustration shows an economical method of draining mines without the expense of erecting surface-engines, fixing pump-rods, or other gearing. A boiler adjacent to the pit's mouth is all that is necessary on the surface; from thence steam may readily be taken down, by means of a felted steam-pipe, to connect the pump with the boiler. The pump may be placed in any situation that may be convenient for working it, and connecting the steam, suction, and delivery pipes.

These engines can be fixed and set to work in a



comparatively short time, and also at a very small outlay. They are used in large mines as auxiliary engines, and will be found invaluable adjuncts in all mining operations.

To estimate the quantity of water to be raised by any given size of pump refer to the tabulated list below. It is recommended to use long-stroke pumps where the height exceeds 100 ft., so that the largest result may be obtained with a minimum wear and tear of the pump pistons and valves. The pumps are provided with doors for ready access to all working parts.

## PRICES OF THE "SPECIAL" STEAM PUMPS.

| Diameter of Steam Cylinder ..... | 2½  | 3   | 4   | 4    | 6    | 6    | 6      | 7    | 7      | 7      | 8    | 8    | 8    | 8      | 10   | 10   | 12     | 12 | 14 | 16 | 26 |
|----------------------------------|-----|-----|-----|------|------|------|--------|------|--------|--------|------|------|------|--------|------|------|--------|----|----|----|----|
| Diameter of Water Cylinder ..... | 1½  | 1½  | 2   | 4    | 3    | 4    | 6      | 5    | 6      | 7      | 4    | 6    | 7    | 8      | 6    | 7    | 8      | 10 | 8  | 7  | 6½ |
| Length of Stroke .....           | 6   | 9   | 9   | 12   | 12   | 12   | 12     | 12   | 12     | 12     | 12   | 12   | 12   | 18     | 12   | 12   | 18     | 24 | 48 | 24 | 72 |
| Strokes per minute .....         | 100 | 100 | 70  | 50   | 50   | 50   | 50     | 50   | 50     | 50     | 50   | 50   | 50   | 35     | 50   | 50   | 35     | —  | —  | —  | —  |
| Gallons per hour .....           | 310 | 680 | 815 | 3250 | 1830 | 3250 | 7330   | 5070 | 7330   | 9750   | 3250 | 7330 | 9750 | 13,000 | 7330 | 9750 | 13,000 | —  | —  | —  | —  |
| PRICE .....                      | £10 | £15 | £20 | £35  | £30  | £40  | £47 10 | £50  | £52 10 | £57 10 | £50  | £55  | £65  | £85    | £70  | £80  | £100   | —  | —  | —  | —  |

IF BRASS LINED, OR SOLID BRASS OR GUN-METAL WATER CYLINDERS, WITH COPPER AIR VESSELS, EXTRA, ACCORDING TO SIZE.

Any Combination can be made between the Steam and Water Cylinders, provided the Lengths of Stroke are the same, thus—8 in. Steam and 3 in. Water, or 10 in. Steam and 3 in. Water, adapted to height of lift and pressure of steam, and so on.

**TANGYE BROTHERS & HOLMAN, 10, Laurence Pountney-lane, London, E.C.**

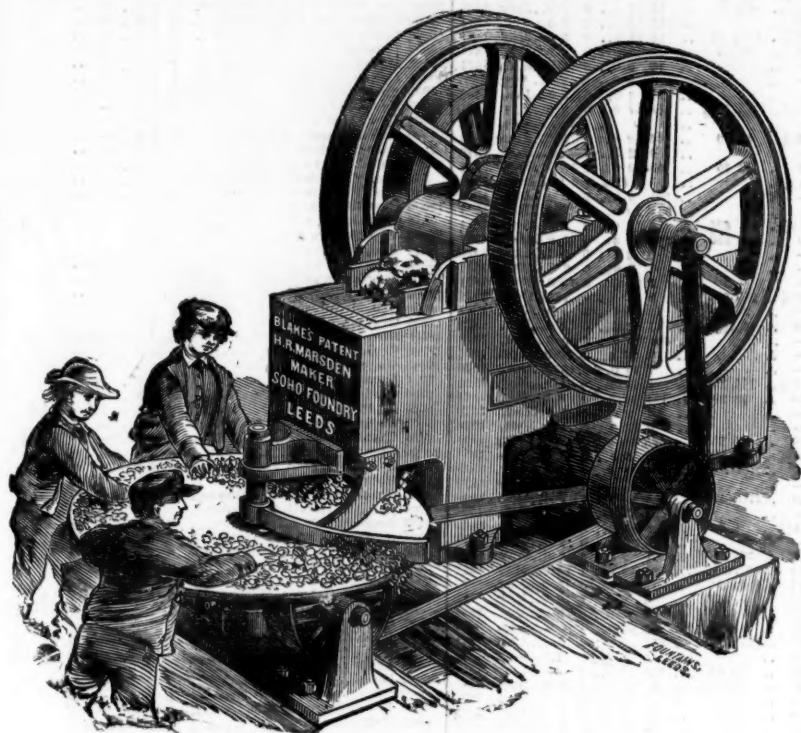
AWARDED TWENTY GOLD AND SILVER FIRST-CLASS PRIZE MEDALS.

IMMENSE SAVING OF LABOUR.  
TO MINERS, IRONMASTERS, MANUFACTURING CHEMISTS, RAILWAY COMPANIES, EMERY AND FLINT  
GRINDERS, MACADAM ROAD MAKERS, &c., &c.**BLAKE'S PATENT STONE BREAKER,  
OR ORE-CRUSHING MACHINE,**

FOR REDUCING TO SMALL FRAGMENTS ROCKS, ORES, AND MINERALS OF EVERY KIND.

This is the only machine that has proved a success. This machine was shown in full operation at the Royal Agricultural Society's Show at Manchester, and at the Highland Agricultural Society's Show at Edinburgh, where it broke 1½ ton of the hardest trap or winstone in eight minutes, and was AWARDED TWO FIRST-CLASS SILVER MEDALS. It has also just received SPECIAL GOLD MEDAL at Santiago, Chili.

It is rapidly making its way to all parts of the globe, being now in profitable use in California, Washoe, Lake Superior, Australia, Cuba, Chili, Brazil, and throughout the United States and England. Read extracts of testimonials:—



*The Parys Mining Company, Parys Mines, near Bangor, June 6.*—We have had one of your stone breakers in use during the last 12 months, and Capt. Morcom reports most favourably as to its capabilities of crushing the materials to the required size, and its great economy in doing away with manual labour.

For the Parys Mining Company,  
H. R. Marsden, Esq. JAMES WILLIAMS.

*Edon Emery Works, Manchester.*—We have used Blake's patent stone breaker made by you, for the last 12 months, crushing emery, &c., and it has given every satisfaction. Some time after starting the machine a piece of the moveable jaws about 20 lbs. weight, chilled cast-iron, broke off, and was crushed in the jaws of the machine to the size fixed for crushing the emery.

THOS. GOLDSWORTHY & SONS.  
H. R. Marsden, Esq.

*Alkali Works, near Wednesbury.*—I at first thought the outlay too much for so simple an article, but now think it money well spent.

WILLIAM HUNT.

*Welsh Gold Mining Company, Dolgelly.*—The stone breaker does its work admirably, crushing the hardest stones and quartz.

WM. DANIEL.  
Our 15 by 7 in. machine has broken 4 tons of hard whinstone in 20 minutes, for fine road metal, free from dust.

Messrs. ORD and MADDISON,  
Stone and Lime Merchants, Darlington.

*Kirkless Hall, near Wigan.*—Each of my machines breaks from 100 to 120 tons of limestone or ore per day (10 hours), at a saving of 4d. per ton.

JOHN LANCASTER.  
*Ovoca, Ireland.*—My crusher does its work most satisfactorily. It will break 10 tons of the hardest copper ore stone per hour.

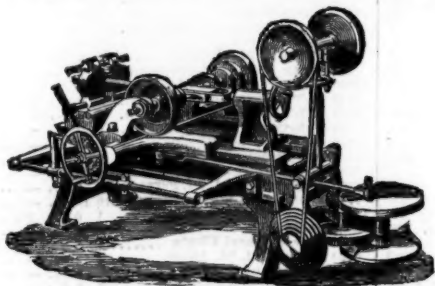
WM. G. ROBERTS.

*General Fremont's Mines, California.*—The 15 by 7 in. machine effects a saving of the labour of about 20 men, or \$75 per day. The high estimation in which we hold your invention is shown by the fact that Mr. Park has just ordered a third machine for this estate.

SILAS WILLIAMS.  
Your stone breaker gives us great satisfaction. We have broken 101 tons of Spanish pyrites with it in seven hours.

EDWARD AARON.  
H. R. Marsden, Esq. Weston, near Runcorn

For illustrated catalogue, circulars, and testimonials, apply to—

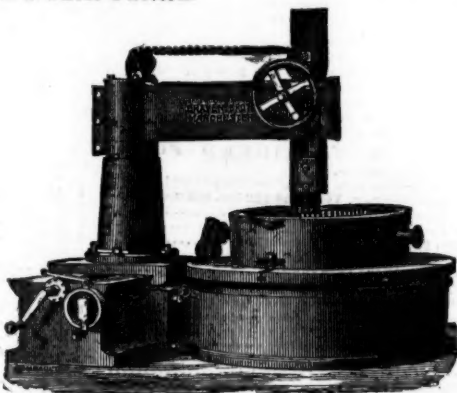
**H. R. MARSDEN, SOHO FOUNDRY,**MEADOW LANE, LEEDS,  
ONLY MAKER IN THE UNITED KINGDOM.**Patent Duplex Cotter-Hole and  
Key-Bed DRILLING MACHINE.**

The advantage of this Machine is, that the Drills are only requisite to be half the length of the Cotter-hole required to be cut, as they operate simultaneously from both sides of the object, meeting accurately in the middle, and doing the work in less than half the usual time, besides producing a smooth hole on account of short, stiff Drills being used, thus producing a much better class of work, hitherto unattainable by the Machines with one long Drill.

The Machine is made in three sizes, and often made with double set of Head Stocks, to drill both ends of a connecting rod at the same time.

**Improved WHEEL-MOULDING  
MACHINE.**

This Machine will Mould the Teeth of Bevel, Spur, and Worm Wheels, also Straight Racks, of any Pitch with a whole Pattern.



Some of the many advantages in the use of this Machine are, that the Teeth of Wheels are perfectly straight across the Tooth, no taper being required to draw the pattern; the Wheels are true in diameter, not depending upon a wood model, which sometimes alters in shape; Wheels of any pitch and form of teeth can be moulded without the use of a whole expensive pattern; and wheels to work into each other can be made mathematically correct in form, at the small cost of segment patterns.

The Machine is made in various sizes to mould wheels of any diameter.

**CRAVEN BROTHERS,**  
MAKERS OF EVERY DESCRIPTION OF MACHINE TOOLS,  
Vauxhall Ironworks, Osborne Street, Manchester.

**TO PROPRIETORS OF MINES, COLLIERIES, AND IRONWORKS.****A SAVING OF AT LEAST £20 A TON**

MAY BE EFFECTED BY ADOPTING

**THE DON LUBRICATING OIL.**

It has been in use now for nearly three years by the WIGAN COAL AND IRON COMPANY, whose Manager, Mr. ALFRED HEWLETT, says—"I have used the Don Oil for nearly two years, and FIND IT TO ANSWER exceedingly well for the purposes of lubrication."

We have also most flattering written opinions, which could be produced, from Mr. THOMAS EMMERSON FORSTER, M.E., of Newcastle-upon-Tyne; from Mr. HARTOP, of Elsecar; from Messrs. VICKERS, SONS, and Co., of Sheffield; and from numbers of others. In face of such indisputable testimony, it is simply a WASTE OF MONEY to use the common kinds, which are nearly DOUBLE THE PRICE. Trials may be made AT OUR EXPENSE: particulars forwarded on application.

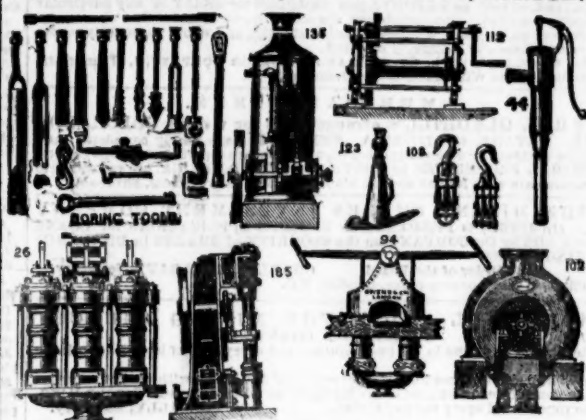
AGENTS WANTED, or special arrangements might be made with parties introducing it to their friends.

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London Office,—2 BLOOMFIELD STREET, LONDON WALL.  
Liverpool Office,—20, UNITY BUILDINGS.

**S. OWENS AND CO.**

Hydraulic and General Engineers,

WHITEFRIARS STREET, FLEET STREET, LONDON.



MANUFACTURERS OF

BORING TOOLS, for testing ground for Minerals, Bridge Foundations, Artesian Wells, &amp;c., to any depth.

No. 26.—Treble Barrel and other Deep Well Pumps.

No. 136.—Vertical and other Portable Steam-engines.

No. 185.—Horizontal and Vertical Steam Pumping-engines.

No. 112.—Single and Double-purchase Crab Winches.

No. 108.—Pulley Blocks of all sizes.

No. 123.—Bottle and other Lifting Jacks.

No. 94.—Double-barrel Pumps, for Mine or Quarry use

No. 44.—Portable Wrought-iron Pumps, ditto ditto

No. 102.—Bernays's Patent Centrifugal Pumps, of all sizes.

ALSO EVERY OTHER DESCRIPTION OF

HYDRAULIC AND GENERAL MACHINERY,

COMPRISING

TURBINES, WATER WHEELS, WIND ENGINES,  
THE HYDRAULIC RAM, FIRE ENGINES, &c.

Catalogues and Estimates on application.

**M'TEAR AND CO'S CIRCULAR FELT ROOFING**

FOR

GREAT ECONOMY

AND

CLEAR WIDE SPACE.

For particulars, estimates,  
and plans, address,—

M'TEAR &amp; CO.,

20, BUDGE ROW, CANNON

STREET, LONDON;

54, PORTLAND STREET,

MANCHESTER;

OR,

CORPORATION STREET,

BELFAST.

The above drawing shows the construction of this cheap and handsome roof, now much used for covering factories, stores, sheds, farm buildings, &c., the principals of which are double bow and string girders of best pine timber, sheeted with ½ in. boards, supported on the girders by purlins running longitudinally, the whole being covered with patent waterproof roofing felt. These roofs so combine lightness with strength that they can be constructed up to 100 ft. span without centre supports, thus not only affording a clear wide space, but effecting a great saving both in the cost of roof and uprights.

They can be made with or without top-lights, ventilators, &c. Felt roofs of any description executed in accordance with plans. Prices for plain roofs from 30s. to 60s. per square, according to span, size, and situation.

Manufacturers of PATENT FELTED SHEATHING, for covering ships' bottoms under copper or zinc.

INODOROUS FELT for lining damp walls and under floor cloths.

DRY HAIR FELT, for deadening sound and for covering steam pipes, thereby saving 25 per cent. in fuel by preventing the radiation of heat.

PATENT ASPHALTE ROOFING FELT, price 1d. per square foot.

Wholesale buyers and exporters allowed liberal discounts.

PATENT ROOFING VARNISH, in boxes from 3 gallons to any quantity required. 8d. per gallon.



By a special method of preparation, this leather is made solid, perfectly close in texture, and impermeable to water; it has, therefore, all the qualifications essential for pump buckets, and is the most durable material of which they can be made. It may be had of all dealers in leather, and of

**I. AND T. HEPBURN AND SONS,**  
TANNERS AND CURRIERS, LEATHER MILLBAND AND HOSE PIPE MANUFACTURERS,  
LONG LANE, SOUTHWARK, LONDON.

Prize Medals, 1851, 1855, 1862, for  
MILL BANDS, HOSE, AND LEATHER FOR MACHINERY PURPOSES

**THE IRON AND COAL TRADES' REVIEW:**  
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| Shares. | Company.                                | Paid.   | Price.           |
|---------|---|---------|------------------|
| £100    | John Abbot and Co. [L.]                 | 75 0 0  | 22 30 dis.       |
| 100     | Asbury Co. [L.]                         | 90 0 0  | 40 35 dis.       |
| 100     | Blackburn Iron and Steel Co. [L.]       | 7 10 0  | —                |
| 100     | Bolckow, Vaughan, and Co. [L.]          | 30 0 0  | 20 25 pm.        |
| 100     | Brown, John, and Co. [L.]               | 70 0 0  | 6 7 pm.          |
| 100     | Consett Iron Co. [L.]                   | 7 10 0  | 5 8 1/2 pm.      |
| 100     | Carnegie and Co. [L.]                   | 80 0 0  | 30 6 dis.        |
| 25      | Ebbw Vale Co. [L.]                      | 27 10 0 | 7 6 dis.         |
| 6       | Fairbank Engineering                    | 5 0 0   | 1 1/2 dis.       |
| 20      | General Mining Association [L.]         | 20 0 0  | 8 10             |
| 15      | Hopkins, Gilkes, and Co. [L.]           | 10 0 0  | 1 1/4 1/2 pm.    |
| 100     | Ironmasters' Company [L.]               | 10 0 0  | —                |
| 20      | Midland Iron Co. [L.]                   | 5 0 0   | 26 28 pm.        |
| 2 1/2   | Mersey Iron and Coal Co. [L.]           | 11 10 0 | 7 1/2 7 3/4 dis. |
| 4       | Wyndy Iron Ore [L.]                     | 3 10 0  | 2 1/2 3 dis.     |
| 1       | Norbuca Coal and Iron                   | 0 7 0   | par.             |
| 25      | Palmer's Shipbuilding and Iron Co. [L.] | 25 0 0  | 3 1/2 1 pm.      |
| 35      | Patent Shaft and Axle Co. [L.]          | 35 0 0  | 3 1/2 7 pm.      |
| 20      | Rhymer Iron Co. [L.]                    | 20 0 0  | 18 16 pm.        |
| 15      | Shotts Iron Co. [L.]                    | 15 0 0  | 6 5 dis.         |
| 20      | Shropshire Iron and Coal Co. [L.]       | 20 0 0  | 21 20 dis.       |
| 100     | Staveley Iron and Coal Co. [L.]         | 60 0 0  | 40 42 pm.        |
| 10      | Thames Iron Company                     | 10 0 0  | 8 9 pm.          |
| 100     | Thames Iron Company                     | 10 0 0  | —                |
| 7 1/2   | Titanic Iron and Steel                  | 5 0 0   | —                |
| 150     | Vancouver Coal [L.]                     | 6 0 0   | 1/2 dis. par.    |
| 10      | Van Iron Ore [L.]                       | 10 0 0  | —                |
| 100     | Wigan Coal and Iron Co.                 | 100 0 0 | 12 10 dis.       |
| 75      | Wigan Coal and Iron Co.                 | 75 0 0  | 12 10 dis.       |

## THE MINING SHARE LIST

**BRITISH DIVIDEND MINES.**

| Shares. | Mines.                                | Paid.    | Last Pr. | Business.      | Total divs.  | Per share. | Last paid. |
|---------|---------------------------------------|----------|----------|----------------|--------------|------------|------------|
| 1600    | Alderley Edge, c. Cheshire            | 10 0 0   | —        | —              | 10 8 0       | 0 5 0      | Jan. 1869  |
| 30000   | Blanc Caelan, s. i. Cardigan          | 1 0 0    | 1 1/4    | 1 1/4          | 0 10 0       | 1 0        | May 1871   |
| 4000    | Boscawell, s. i. St. Just             | 1 0 0    | —        | —              | 0 20 0       | 0 20       | Apr. 1870  |
| 200     | Botalack, s. i. St. Just              | 91 5 0   | 250      | 230 250        | 695 5 0      | 0 5 0      | May 1871   |
| 30000   | Brookwood, s. i. Cardigan             | 2 10 0   | —        | —              | 0 12 0       | 0 10       | Apr. 1871  |
| 4000    | Drake Wells, c. Buckfastleigh         | 1 16 0   | —        | —              | 0 17 0       | 0 2 6      | Mar. 1871  |
| 5000    | Bush Conols, s. i. Cardigan           | 4 0 0    | —        | —              | 0 9 0        | 0 2 0      | May 1870   |
| 4000    | Cashwell, i. Cumberland               | 2 10 0   | —        | —              | 0 14 0       | 0 2 0      | Dec. 1870  |
| 8000    | Cargill, s. i. Newlyn                 | 16 2 7   | —        | —              | 0 15 0       | 0 10 0     | Aug. 1869  |
| 2450    | Leek's Kitchen, c. Illogan            | 19 14 9  | 24       | 24 25          | 0 18 0       | 0 12 6     | Apr. 1871  |
| 867     | Cwm Erwin, i. Cardiganshire           | 7 10 0   | —        | —              | 0 13 0       | 0 5 0      | Jan. 1871  |
| 128     | Cwmystwith, i. Cardiganshire          | 60 0 0   | —        | —              | 0 394 10 0   | 0 2 0      | July 1869  |
| 280     | Darwent Mines, s. i. Durham           | 800 0 0  | —        | —              | 0 177 0 0    | 0 2 10     | July 1868  |
| 1024    | Devon Gt. Consols, c. Tavistock       | 1 0 0    | 110      | 97 1/2 102 1/2 | 0 1153 0 0   | 0 4 0      | May 1871   |
| 858     | Ding Dong, c. Gwulv                   | 49 14 6  | —        | —              | 0 12 1/2 13  | 0 15 0     | Aug. 1870  |
| 1482    | Dolcoath, c. i. Camborne              | 22 4 6   | 152      | 147 1/2 150    | 0 257 2 6    | 0 3 0      | Apr. 1871  |
| 1880    | Drake Wells, i. Cardigan              | 2 10 0   | —        | —              | 0 1 3 0      | 0 1 0      | July 1870  |
| 1144    | East Caradon, c. St. Cleer            | 2 14 6   | —        | —              | 0 14 11 6    | 0 2 0      | July 1867  |
| 300     | East Darren, i. Cardiganshire         | 22 0 0   | —        | —              | 0 107 10 0   | 0 2 0      | Apr. 1871  |
| 4000    | East Pool, i. St. Just                | 10 8 1   | —        | —              | 0 11 11 3    | 0 5 0      | May 1871   |
| 1906    | East Wheel, i. St. Just               | 3 9 0    | 26       | 24 25          | 0 16 16 0    | 0 2 0      | Feb. 1871  |
| 2800    | Foxdale, i. Isle of Man               | 25 0 0   | —        | —              | 0 78 0 0     | 0 15 0     | Mar. 1871  |
| 5000    | Frank Mills, i. Chistow               | 3 18 6   | —        | —              | 0 4 8 0      | 0 2 6      | Aug. 1870  |
| 3250    | Gawton, c. Tavistock                  | 3 10 6   | —        | —              | 0 0 3 0      | 0 3 0      | Jan. 1868  |
| 15000   | Great Laxey, i. Isle of Man           | 4 0 0    | 18 1/4   | 17 1/2 18 1/2  | 0 18 17 0    | 0 8 0      | Mar. 1871  |
| 3000    | Great Northern Manganese              | 5 0 0    | —        | —              | —            | —          | —          |
| 5908    | Great Wheel, i. St. Just              | 40 0 0   | —        | —              | 0 12 12 0    | 0 3 6      | June 1869  |
| 10240   | Gunnislake (Clitters), i. St. Just    | 4 19 0   | —        | —              | 0 0 2 0      | 0 1 0      | Nov. 1870  |
| 1024    | Hillside, i. near Liskeard            | 8 10 0   | 43       | 43 45          | 0 55 10 0    | 0 10 0     | Feb. 1871  |
| 2000    | Killaloe, s. i. Tipperary             | 1 0 0    | —        | —              | 0 2 11 1/2 0 | 0 9 1/2    | Dec. 1870  |
| 2000    | Leant, c. i. St. Just                 | 18 10 0  | —        | —              | 0 110 10 0   | 0 2 0      | Aug. 1869  |
| 400     | Libra, i. Cardiganshire               | 18 10 0  | —        | —              | 0 343 10 0   | 0 2 0      | Mar. 1871  |
| 9000    | Marke Valley, c. Cardon               | 4 10 6   | 6 1/4    | 6 1/4 6 1/4    | 0 6 18 0     | 0 0 4      | Apr. 1871  |
| 1800    | Miners Mining Co., Wrexham            | 25 0 0   | 190      | 180 190        | 0 289 3 0    | 0 15 0     | May 1871   |
| 30000   | Mining Co. of Ireland, c. i. St. Just | 7 0 0    | —        | —              | 0 4 6 1/2 0  | 0 2 1      | July 1870  |
| 6400    | New Pembroke, c. i. St. Just          | 5 0 0    | —        | —              | 0 0 7 6 0    | 0 2 6      | Mar. 1871  |
| 3000    | North Levant, c. i. St. Just          | 10 12 0  | —        | —              | 0 2 10 0     | 0 15 0     | Feb. 1871  |
| 5810    | North Wheel, c. i. St. Just           | 3 11 3   | —        | —              | 0 0 4 0      | 0 1 6      | Oct. 1870  |
| 268     | Pendarves Croft, c. Camb.             | 86 0 0   | 40       | 30 40          | 0 18 0 0     | 0 3 0      | Mar. 1871  |
| 6000    | Penhall, i. St. Agnes                 | 3 0 0    | —        | —              | 0 1 16 0     | 0 3 0      | Feb. 1871  |
| 600     | Phenix, c. i. Llanthorne              | 47 0 0   | —        | —              | 0 468 10 0   | 0 7 0      | Oct. 1871  |
| 1772    | Polbarn, i. St. Agnes                 | 15 0 0   | —        | —              | 0 0 17 0     | 0 10 0     | Apr. 1871  |
| 2000    | Poldice, c. i. Gwennap                | 10 0 0   | —        | —              | 0 1 10 0     | 0 10 0     | Oct. 1870  |
| 12800   | Prince of Wales, c. Calstock          | 0 12 6   | 1 1/4    | 1 1/4 1 1/4    | 0 10 6 0     | 0 10 0     | Nov. 1869  |
| 1120    | Providence, c. i. Uny Lelant          | 10 6 7   | 29       | 28 29          | 0 101 12 6   | 0 1 0      | Mar. 1871  |
| 15000   | Queen, s. i. Calstock                 | 0 10 0   | —        | —              | 0 0 2 0      | 0 1 0      | Dec. 1870  |
| 5869    | Rosewall Hill & Ransom, i. St. Just   | 4 0 0    | —        | —              | 0 0 13 0     | 0 1 6      | Dec. 1870  |
| 612     | South Caradon, c. St. Cleer           | 1 5 0    | 200      | 180 200        | 0 665 10 0   | 0 3 0      | May 1871   |
| 6128    | South Condurow, c. i. Camborne        | 5 5 6    | —        | —              | 0 0 5 0      | 0 5 0      | Feb. 1871  |
| 6000    | South Darren, i. Cardigan             | 3 6 6    | —        | —              | 0 1 6 0      | 0 1 6      | Nov. 1870  |
| 987     | South Wh. Croft, c. Illogan           | 24 10 10 | —        | —              | 0 0 2 0      | 0 10 0     | Jan. 1871  |
| 18      | Wh. Francis, c. Illogan               | 18 10 0  | 40       | 37 1/2 42 1/2  | 0 274 10 0   | 0 10 0     | Mar. 1869  |
| 242     | Spearmoor, i. St. Just                | 36 17 9  | —        | —              | 0 15 15 0    | 0 1 0      | Feb. 1871  |
| 940     | St. Ives Consols, i. St. Ives         | 10 15 0  | —        | —              | 0 0 10 0     | 0 10 0     | May 1869   |
| 8771    | St. Just Amalgamated, i. St. Just     | 3 10 0   | —        | —              | 0 0 5 0      | 0 2 6      | Nov. 1870  |
| 12000   | Tankerville, i. Salop                 | 6 0 0    | 18       | 17 1/2 18 1/2  | 0 1 0 0      | 0 6 0      | May 1871   |
| 6000    | Tincroft, c. i. Pool, Illogan         | 9 0 0    | 50       | 49 50 x d.     | 0 30 18 6    | 0 15 0     | May 1871   |
| 2000    | Trun, i. Cardigan                     | 11 10 0  | 24       | 23 24          | 0 13 0 0     | 0 15 0     | Mar. 1871  |
| 15000   | Van, i. Llanidloes                    | 4 5 0    | 65       | 51 63          | 0 4 2 0      | 0 12 0     | Mar. 1871  |
| 3000    | W. Chiverton, i. Pannabuloe           | 10 0 0   | 45       | 36 45          | 0 47 6 0     | 0 2 0      | Apr. 1871  |
| 612     | West Wheel, c. i. St. Just            | 106 15 0 | —        | —              | 0 6 10 0     | 0 1 0      | Apr. 1871  |
| 12288   | Wheel Arthur, c. Calstock             | 1 0 0    | —        | —              | 0 0 1 0      | 0 1 0      | Mar. 1871  |
| 612     | Wheel Bassett, c. Illogan             | 5 2 6    | 55       | 60 65          | 0 682 10 0   | 0 1 0      | June 1869  |
| 612     | Wheel Jane, c. i. Kea                 | 10 15 0  | 35       | 35 36          | 0 33 10 0    | 0 10 0     | Nov. 1870  |
| 4295    | Wheel Kitty, i. St. Agnes             | 5 4 6    | 9        | 8 1/2 9        | 0 6 8 0      | 0 7 6      | May 1871   |
| 1024    | Wheel Kitty, i. Uny Lelant            | 3 10 6   | 9        | 9 10           | 0 13 12 6    | 0 5 0      | Apr. 1871  |
| 896     | Wheel Margaret, i. Uny Lelant         | 13 17 6  | 12       | 10 12          | 0 79 15 0    | 0 10 0     | May 1871   |
| 1024    | Wheel Mary Ann, i. Menheniot          | 8 0 0    | 12       | 10 12          | 0 72 17 6    | 0 10 0     | June 1869  |
| 1000    | Wh. Mary Hutchins, Plimp, i. St. Just | 2 12 6   | —        | —              | 0 0 10 0     | 0 7 0      | Nov. 1870  |
| 80      | Wheel Owen, i. St. Just               | 70 0 0   | —        | —              | 0 482 10 0   | 0 1 0      | Dec. 1870  |
| 12000   | West Russell, c. Tavistock            | 1 0 0    | —        | —              | 0 1 0 0      | 0 1 0      | Dec. 1870  |
| 396     | West St. John, c. i. Camborne         | 61 0 0   | 22 1/4   | 20 25          | 0 254 15 0   | 0 2 0      | Feb. 1869  |
| 4096    | Wheel Uny, c. i. Redruth              | 10 14 6  | 7 1/4    | 7 1/4          | 0 0 5 0      | 0 5 0      | Apr. 1871  |
| 17000   | Wicklow, c. i. Wicklow                | 2 10 0   | 6        | 7 1/2 7 3/4    | 0 50 2 6     | 0 2 6      | Sept. 1870 |

## FOREIGN DIVIDEND MINES.

|        |  |         |           |             |           |        |           |
|--------|--|---------|-----------|-------------|-----------|--------|-----------|
| 35000  | Almaden, i. Spain                      | 2 0 0   | 13 1/2    | 13 1/2      | 0 15 6 0  | 0 1 0  | Oct. 1871 |
| 120000 | Almaden-Triton Consolidated            | 2 0 0   | 1 1/2     | 1 1/2       | 0 0 1 0   | 0 1 0  | Oct. 1871 |
| 15000  | Australian, c. South Australia         | 7 0 0   | 15        | 14 15       | 0 6 7 6   | 0 10 0 | Apr. 1871 |
| 30000  | Central American Association           | 0 15 0  | —         | —           | 0 0 6 0   | 0 1 0  | July 1869 |
| 21000  | Colorado Terrible, s. i. Colorado      | 5 0 0   | 7 1/2     | 6 1/2       | 0 4 6 0   | 0 2 0  | Mar. 1871 |
| 10000  | Copiapu Mining Co., Chile              | 16 10 0 | 2         | 1 1/2 2 1/2 | 0 0 4 0   | 0 4 0  | Apr. 1869 |
| 76162  | Don Pedro North del Rey                | 0 14 0  | 2 1/2     | 2 1/2       | 0 2 3 0   | 0 4 0  | Mar. 1870 |
| 70000  | English and Australian, c. i. St. Just | 2 10 0  | —         | —           | 0 1 19 0  | 0 9 0  | Feb. 1869 |
| 25000  | Fortuna, i. Spain                      | 2 0 0   | 2 1/2     | 2 1/2       | 0 2 5 4   | 0 2 6  | Mar. 1871 |
| 10000  | Gonnesa, i. Sardinia                   | 5 0 0   | —         | —           | 0 10 10 0 | 0 6 0  | Nov. 1868 |
| 60000  | Kapunda Mining Co., Australia          | 3 0 0   | 3 1/2     | 3 1/2       | 0 12 18 4 | 0 6 0  | Nov. 1869 |
| 15000  | Linares, i. Spain                      | 3 0 0   | 2         | 1 1/2 2 1/2 | 0 10 10 0 | 0 6 0  | Mar. 1871 |
| 50000  | Panuco, c. Chile                       | 4 0 0   | 2         | 1 1/2 2 1/2 | 0 10 10 0 | 0 6 0  | Mar. 1871 |
| 10000  | Pontal, s. i. France                   | 30 0 0  | 17        | 16 17       | 0 7 1 8   | 0 15 6 | Nov. 1869 |
| 100000 | Port Phillip, c. i. Clunes             | 1 0 0   | 1         | 1 1/2       | 0 1 0 0   | 0 1 6  | Jan. 1870 |
| 120000 | Scottish Australian Min. Co.           | 1 0 0   | 7 1/2     | 5 1/2       | 0 6 2 0   | 0 2 0  | Apr. 1871 |
| 12500  | Sierra Buttes, c. California           | 2 0 0   | 4 1/2     | 4 1/2       | 0 0 2 0   | 0 2 0  | Feb. 1871 |
| 10000  | St. Aurora, s. Nevada                  | 5 0 0   | 7 1/2     | 7 1/2       | 0 7 2 0   | 0 7 2  | Mar. 1871 |
| 11000  | St. John del Rey, Brazil               | 15 0 0  | 33        | 29 31       | 0 81 10 0 | 0 4 5  | Dec. 1867 |
| 15000  | Sweetland Creek, c. California         | 4 0 0   | 5         | 4 1/2       | 0 16 0 0  | 0 4 0  | May 1871  |
| 50000  | Victoria (London) [25000 £1 pd.]       | 25000   | 168. pd.] | —           | 0 9 7 0   | 0 7 0  | July 1869 |